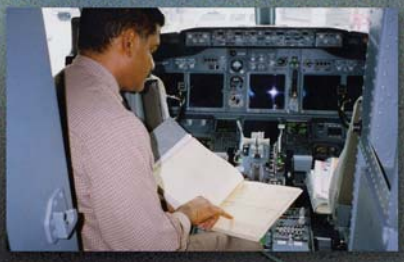
Federal Aviation Administration

Portfolio of Goals

FY 2006



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PORTFOLIO OF GOALS
FY 2006

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Safety

Greater Capacity

International Leadership

Organizational Excellence

SAFETY
Commercial Air Carrier Fatal Accident Rate

Federal Aviation Administration

FY 2006 Performance Target

"Reduce the commercial air carrier fatal accident rate to 0.018 per 100,000 departures."

Flight Plan Objective and Performance Target

Objective 1: Reduce the commercial air carrier fatal accident rate.

Performance Target: Reduce the commercial air carrier fatal accident rate by 80 percent from the 1994-1996 baseline to a 3-year rolling average rate of 0.010 per 100,000 departures by FY 2007. Reduce the three-year rolling average fatal accident rate below 0.010 by FY 2010.

	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006
Target	0.038	0.033	0.028	0.023	0.018
Actual	0.026	0.024	0.021(r)	0.017#	

(r) Revised; # Preliminary estimate

Definition of Measure

Unit of Measure: Rate of fatal accidents per departures.

Computation: A rolling three-year average of the accident rate is used to measure performance against annual targets. The three-year average is calculated by dividing the number of accidents for previous 36 months by the number of departures.

Formula:

$$\frac{(FY1 + FY2 + FY3)\ \text{Fatal Accidents}}{(FY1 + FY2 + FY3)\ \text{Departures}} = \frac{X}{100{,}000\ \text{Departures}}$$

Scope of Measure: This measure includes both scheduled and nonscheduled flights of U.S. passenger and cargo air carriers (14 CFR Part 121) and scheduled flights of regional operators (14 CFR Part 135). It excludes on-demand (i.e., air taxi) service and general aviation. Accidents involving passengers, crew, ground personnel, and the uninvolved public are all included.

Why the FAA Chooses this Measure

The goal to reduce fatal commercial accidents by 80 percent in ten years originated in the final report of the White House Commission on Aviation Safety and Security issued on February 12, 1997. The National Civil Aviation Review Commission in its report, *Avoiding Aviation Gridlock & Reducing the Accident Rate* (December 1997), ratified this goal. In response to these reports, the FAA initiated a joint government-industry analysis of causal factors for aviation accidents. The resulting document, *Safer Skies – A Focused Agenda*, has formed the basis for joint government-industry efforts to reduce the number of accidents in both the commercial and general aviation areas.

Source of the Data

The data on commercial and general aviation fatal accidents come from the National Transportation Safety Board's (NTSB's) Aviation Accident Database. Aviation accident investigators under the auspices of the NTSB develop the data. Departure data is submitted by carriers to the Office of Airline Information (OAI) within the Bureau of Transportation Statistics.

Statistical Issues

Both accidents and departures are censuses, having no sampling error. However, missing data, particularly in the departure counts, will result in bias to some degree. The fatal accident rate is small and could significantly fluctuate from year to year due to a single accident. Use of an average over three years smoothes the fluctuation that may occur in any given year.

The joint government/industry group working on improving the level of safety for U.S. commercial aviation has determined that the number of departures is a better denominator measure to use for determining accident rates and the General Accounting Office recommended that FAA use departures.

Completeness

The FAA does comparison checking of the departure data collected by BTS. However, FAA has no independent data sources against which to validate the numbers submitted to BTS. FAA compares its list of carriers to the DOT list to validate completeness and places the carriers in the appropriate category (i.e., Part 121 or Part 135). Actual departure data for any given period of time is considered preliminary for up to 12 months after the close of the reporting period. This is due to amended reports subsequently filed by the air carriers. However, the changes to departure data rarely have an effect on the annual fatal accident rate. NTSB and FAA's Office of Accident Investigation meet regularly to validate the accident count.

To overcome reporting delays of 60 to 90 days, FAA must rely on historical data, partial internal data sources, and Official Airline Guide (OAG) scheduling information to project at least part of the fiscal year activity data. FAA uses OAG data until official BTS data is available. The air carrier fatal accident rate is not considered reliable until BTS provides preliminary numbers. Due to reporting procedures in place, it is unlikely that calculation of future fiscal year departure data will be markedly improved. Lacking complete historical data on a monthly basis and independent sources of verification increases the risk of error in the activity data.

Reliability

Results are considered preliminary based on projected activity data. FAA uses performance data extensively for program management, personnel evaluation, and accountability. Most accident investigations are a joint undertaking. NTSB has the statutory responsibility, but, in fact, most of the accident investigations related to general aviation are conducted by FAA Aviation Safety Inspectors without NTSB direct involvement. FAA's own accident investigators and other FAA employees participate in all accident investigations led by NTSB investigators.

SAFETY
General Aviation Fatal Accidents

Federal Aviation Administration

FY 2006 Performance Target

"Reduce the number of general aviation and nonscheduled Part 135 fatal accidents to 337."

Flight Plan Objective and Performance Target

Objective 2: Reduce the number of fatal accidents in general aviation.

Performance Target: By FY 2009, reduce the number of general aviation and nonscheduled Part 135 fatal accidents to no more than 319 (from 385, which represents the average number of fatal accidents for the baseline period of 1996-1998).

	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006
Target	379	374	349	343	337
Actual	348	366(r)	340*	354*	

(r)Revised; *Preliminary estimate.

Definition of Measure

Unit of Measure: Total number of fatal general aviation accidents.

Computation: A count of the number of general aviation fatal accidents during the fiscal year. The first baseline of 379, against which future targets were set, was established based on data from the years 1996 to 1998. However, due to a switch in NTSB reporting from calendar to fiscal year and the addition of previously unrecorded fatal accidents, the baseline has been revised to 385. In FY 2010, the measure will change to a rate, with the target to be determined.

Formula: N/A

Scope of Measure: This measure includes on-demand (non-scheduled FAR Part 135) and general aviation flights. General aviation comprises a diverse range of aviation activities, from single-seat homebuilt aircraft, helicopters, balloons, single and multiple engine land and seaplanes, to highly sophisticated extended range turbojets.

Why the FAA Chooses this Measure

The FAA and general aviation community developed the general aviation fatal accident goal as an overall measure of the impact of improved safety. Since it does not use a measure of activity to take into account changes in activity levels from year to year, the goal reflects a target based on projected growth in general aviation activity as reported in the FAA's annual General Aviation forecasts.

Source of the Data

The data on general aviation fatalities come from the National Transportation Safety Board's Aviation Accident Database. Aviation accident investigators under the auspices of the National Transportation Safety Board develop the data.

Statistical Issues

There is no major error in the accident counts. Random variation in air crashes results in a significant variation in the number of fatal accidents over time.

The FAA would prefer to use a fatal accident rate rather than fatal accidents as the performance measure because the use of a rate measure would take into account variation in activity levels from year to year. However, unlike commercial aviation activity that is reported regularly to the Bureau of Transportation Statistics by the carriers, general aviation flight hours are based on an annual survey conducted by the FAA. Response to the survey has been voluntary. The accuracy of the flight hours collected is suspect and there is no readily available way to verify the data. For these reasons, the General Aviation community is unwilling to use a rate measure until the validity and reliability of the survey data can be assured.

The General Aviation community and the General Aviation Joint Steering Committee of the Safer Skies initiative recommend development of a data collection program that will yield more accurate and relevant data on general aviation demographics and utilization. Improved survey and data collection methodologies have been developed.

As a result of these efforts, the FAA, working with the General Aviation Manufacturers Association, has made several improvements to the GA Survey. First, the sample size has been significantly increased. Second, a reporting sheet has been created to make it much easier for organizations with large fleets to report. Third, the agency worked with the Aircraft Registry to improve the accuracy of contact information. As a result, a survey was completed in FY2004 that, for the first time, creates a statistically valid report of general aviation activity that members of the GA community agree on. The next step is to create the baseline and work with the GA community on a reasonable target for the rate.

Completeness

NTSB and FAA's Office of Accident Investigation meet regularly to validate information on the number of accidents. Results are considered preliminary. NTSB continues to review accident results from FY 2004 and FY 2005.

Numbers are final when the NTSB releases its report each March. So for March 2006, FY2004 accident numbers will be finalized. However, the number is not likely to significantly change from the end of each fiscal year to when the rate is finalized.

Reliability

FAA uses performance data extensively for program management and personnel evaluation and accountability. Most accident investigations are a joint undertaking. NTSB has the statutory responsibility, but, in fact, most of the accident investigations related to general aviation are conducted by FAA Aviation Safety Inspectors without NTSB direct involvement. FAA's own accident investigators and other FAA employees participate in all accident investigations led by NTSB investigators.

SAFETY
Alaska Accidents

Federal Aviation Administration

FY 2006 Performance Target

"Reduce accidents in Alaska for general aviation and all part 135 operations to no more than 115 per year."

Flight Plan Objective and Performance Target

Objective 2: Reduce the number of fatal accidents in general aviation.

Performance Target: By FY 2009, reduce accidents in Alaska for general aviation and all Part 135 operations from the 2000-2002 average of 130 accidents per year to no more than 99 accidents per year.

	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006
Target	N/A	N/A	125	120	115
Actual	N/A	N/A	99*	128*	

* Preliminary estimate

Definition of Measure

Unit of Measure: The total number of Part 135 and general aviation accidents in Alaska.

Computation: A count of the number of general aviation accidents in Alaska during the fiscal year. In FY 2010, the measure will change to a rate. (Target for FY 2010 TBD.)

Formula: N/A

Scope of Measure: This measure includes scheduled and non-scheduled FAR Part 135, as well as general aviation flights. This is **not** a sub-measure of the Reduce General Aviation Fatal Accidents performance target. This measure includes both fatal and non-fatal accidents. Flight operations in Alaska are diverse and they are responsive to the State's challenging aviation environment and its unique air transportation requirements. The Part 135 operations in Alaska are dominated by single-engine airplanes powered by a reciprocating engine, operated under visual flight rules (VFR), and crewed by one pilot. Operating in rough terrain, adverse weather, and in areas of extreme isolation increase the risks to safe flight operations. The General Aviation operators often use the same types of single-engine airplanes and cope with the same environmental factors as the Part 135 operators.

Why the FAA Chooses this Measure

Alaska relies heavily on air transportation in a difficult operating environment. This has led to an unacceptably high accident rate. Reducing accidents in Alaska will have an outsized effect on reducing Part 135 and general aviation accidents system-wide.

Source of the Data

The data on Part 135 and general aviation accidents come from the National Transportation Safety Board's (NTSB's) Aviation Accident Database. Aviation accident investigators under the auspices of the NTSB develop the data.

Statistical Issues

There is no major error in the accident counts. Random variation in air crashes results in a significant variation in the number of fatal accidents over time. The FAA would prefer to use a fatal accident rate rather than fatal accidents as the performance measure because the use of a rate measure would take into account variation in activity levels from year to year. However, unlike commercial aviation activity that is reported regularly to the Bureau of Transportation Statistics by the carriers, general aviation flight hours are based on an annual survey conducted by the FAA.

Response to the survey has been voluntary. The accuracy of the flight hours collected is suspect and there is no readily available way to verify the data. For these reasons, the General Aviation community is unwilling to use a rate measure until the validity and reliability of the survey data can be assured.

The General Aviation community and the General Aviation Joint Steering Committee of the Safer Skies initiative recommend development of a data collection program that will yield more accurate and relevant data on general aviation demographics and utilization. Improved survey and data collection methodologies have been developed.

As a result of these efforts, the FAA, working with the General Aviation Manufacturers Association, has made several improvements to the GA Survey. First, the sample size has been significantly increased. Second, a reporting sheet has been created to make it much easier for organizations with large fleets to report. Third, the agency worked with the Aircraft Registry to improve the accuracy of contact information. As a result, a survey was completed in FY2004 that, for the first time, creates a statistically valid report of general aviation activity that members of the GA community agree on. The next step is to create the baseline and work with the GA community on a reasonable target for the rate.

Completeness

NTSB and FAA's Office of Accident Investigation meet regularly to validate information on the number of accidents. Results are considered preliminary. NTSB continues to review accident results from FY 2004 and FY 2005.

Numbers are final when the NTSB releases its report each March. So for March 2006, FY2004 accident numbers will be finalized. However, the number is not likely to significantly change from the end of each fiscal year to when the rate is finalized.

Reliability

FAA uses performance data extensively for program management and personnel evaluation and accountability. Most accident investigations are a joint undertaking. NTSB has the statutory responsibility, but, in fact, most of the accident investigations related to general aviation are conducted by FAA Aviation Safety Inspectors without NTSB direct involvement. FAA's own accident investigators and other FAA employees participate in all accident investigations led by NTSB investigators.

SAFETY
Runway Incursions

Federal Aviation Administration

FY 2006 Performance Target

"Reduce the rate of Category A and B (most serious) runway incursions at towered airports to 0.551 per million operations."

Flight Plan Objective and Performance Target

Objective 3: Reduce the risk of runway incursions.

Performance Target: By 2010, reduce the rate of Category A and B (most serious) runway incursions to a rate of no more than 0.450 per million operations.

	FY 2002	FY 2003	FY 2004	FY 2005*	FY 2006
Target	53	44	40	36/0.557	0.551
Actual	37	32	28	29/0.460	

* Target and result for FY 2005 were number of incursions, but rate was also reported. For FY 2006 and beyond, target will be a rate. Number of errors will be reported as part of the result for these years.

Definition of Measure

Unit of Measure: Rate of Category A & B (most serious) runway incursions per million operations.

Computation: The total number of Category A and B runway incursions is divided by the sum of the number operations divided by 1 million.

Formula:

$$\frac{\text{Number of A \& B Incursions}}{(\text{Operations Count}/1{,}000{,}000)}$$

Scope of Measure: A runway incursion is any occurrence at an airport involving an aircraft, vehicle, person, or object on the ground that creates a collision hazard or results in a loss of separation between aircraft taking off, intending to take off, landing, or attending to land at an airport. They are grouped in three general categories: operational errors, surface pilot deviations, and vehicle/pedestrian deviations. Runway incursions are reported and tracked at airports that have an operational air traffic control tower. "Operations" are total takeoffs and landings.

The FAA tracks four categories of runway incursions - A, B, C, D - but includes only those with the highest risk of collision, Category A and B incursions, in the measure.

- Category A: Separation decreases to the point that participants take extreme action to narrowly avoid a collision, or the event results in a collision.
- Category B: Separation decreases, and there is a significant potential for a collision.
- Category C: Separation decreases, but there is ample time and distance to avoid a collision.
- Category D: There is little or no chance of collision, but the definition of a runway incursion is met.

In FY2002 FAA changed the focus of measurement for runway incursions from all incursions to those incursions with measurable risk of collision, Categories A and B. Since Category C and D incursions were not likely to lead to an accident or a significant risk of an accident, their inclusion in the previous total tended to mask true safety risk. The new measure reflects the focus of FAA's runway safety effort to reduce the rate of the incursions with demonstrable risk.

Why the FAA Chooses this Measure

Runway incursions create dangerous situations that can lead to serious accidents. Reducing the number of runway incursions lessens the probability of accidents that potentially involve fatalities, injuries and significant property damage.

Source of the Data

Air traffic controllers and pilots are the primary source of runway incursion reports. The data is recorded in the FAA National Incident Monitoring System (NAIMS). Preliminary incident reports are evaluated when received. Evaluation can take up to 90 days.

Statistical Issues

N/A

Completeness

The data is typically not finalized for 90 days following the close of the fiscal year. Surface operational error/deviation, surface pilot deviation, and vehicle/pedestrian deviation reports are reviewed on a daily basis to determine if the incident meets the definition of a runway incursion. Runway incursions are a subset of the incident data collected and the completeness of the data is based on the reporting requirements and completeness for each of the incident types.

Reliability

FAA uses performance data extensively for program management, personnel evaluation and accountability, in prioritizing its facility evaluations and audits. The data is also used on a daily basis to track progress of achieving performance goals. Annual runway incursion incident data are used to provide a statistical basis for research and analysis, and outreach initiatives. The FAA verifies and validates the accuracy of the data through reviews or preliminary and final reports. Reconciliation of the databases is conducted monthly and anomalies are explored and resolved. In cases where major problems are identified, a request to re-submit is issued. The FAA conducts annual reviews of reported data and compares the data with data reported from previous years.

SAFETY
Commercial Space Launch Accidents

Federal Aviation Administration

FY 2006 Performance Target

"Prevent fatalities, serious injuries, or significant property damage to the uninvolved public during licensed space launch and reentry activities."

Flight Plan Objective and Performance Target

Objective 4: Ensure the safety of commercial space launches.

Performance Target: No fatalities, serious injuries, or significant property damage to the uninvolved public during licensed space launch and reentry activities.

	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006
Target	N/A	N/A	0	0	0
Actual	N/A	N/A	0	0	

Definition of Measure

Unit of Measure: Number of accidents resulting in fatalities, injuries or significant property damage.

Computation: A numerical count of the number of accident occurrences.

Formula: N/A

Scope of Measure: This measure focuses only on commercial space launch or reentry activities licensed and monitored by the FAA. "Significant" property damage is defined as $25,000 or greater.

Why the FAA Chooses this Measure

Protecting the public during launch operations is a FAA safety mission objective. Commercial space transportation is the means by which payloads such as satellites and remote sensing devices are carried to orbit; these payloads have tremendous benefit to our society. Commercial space launch or reentry accidents can potentially have major catastrophic consequences, involving large losses of life and property. The uninvolved public expects to be protected from the potential dangers and hazards associated with commercial space launch and reentry activities. There has not been a single commercial space launch accident since the first DOT licensed launch took place in 1989, and DOT is working to keep this safety record perfect.

Source of the Data

Associate Administrator for Commercial Space Transportation (AST). Specifically, AST monitors all licensed launch operations and maintains documented reports of each licensed event. These reports, which include all relevant details pertaining to the outcome of the licensed launch or reentry operation including the occurrence of any public fatalities, injuries or property damage are generated by AST's assigned field inspectors and duty officers for a given launch event. AST will utilize other sources of data such as the launch vehicle operator, and federal, local and state government officials.

Statistical Issues

N/A

Completeness

AST's Licensing and Safety Division maintains and verifies reports that an accident resulting from a licensed launch operation has occurred and supports coordination with other federal agencies which may include the National Transportation Safety Board (NTSB) and the military on any subsequent investigations.

Reliability

If an accident occurs, the FAA and the NTSB will complete official reports fully documenting circumstances associated with the event.

SAFETY
Operational Errors

Federal Aviation Administration

FY 2006 Performance Target

"Reduce the rate of Category A and B (most serious) operational errors to no more than 4.27 per million activities."

Flight Plan Objective and Performance Target

Objective 5: Enhance the safety of FAA's air traffic systems.

Performance Target: By 2010, reduce Category A and B (most serious) operational errors to a rate of no more than 3.18 per million activities.

	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006
Target	N/A	642	629	637/3.92	4.27
Actual*	660	679	638	681/4.27	

* Results for FY 2002 – 2005 are revised from preliminary estimates.
# Target and result for FY 2005 were number of errors, but rate was also reported.
For FY 2006 and beyond, target will be a rate. Number of errors will also be reported.

Definition of Measure

Unit of Measure: Rate of category A & B (most serious) operational errors per million operations.

Computation: The total number of Category A & B operational errors is divided by the sum of the number of activities divided by 1,000,0000.

Formula:

$$\frac{\text{Number of A \& B Errors}}{(\text{Operations Count}/1{,}000{,}000)}$$

Scope of Measure: An operational error is a violation of separation standards that define minimum safe distances between aircraft, between aircraft and other physical structures, and between aircraft and otherwise restricted airspace.

The severity of an operational error is determined by a point value established by the severity index. The severity index determines, for operational errors that occur in-flight, the gravity or degree of the violation of the separation standard. Categories within the severity index are determined by the sum of assigned values for vertical and lateral distances, closure rates, and flight paths. There are four categories of severity: Low (Category D), Moderate-Controlled (Category C), Moderate-Uncontrolled (Category B), and High (Category A). The level of air traffic control determines whether a specific flight is classified as Category B or C.

- Category A: Point values sum 90 points or higher.
- Category B: Point values sum 40 – 89 points, and the ATC control factor is uncontrolled.
- Category C: Point values sum 40 – 89 points, and the ATC control factor is controlled.
- Category D: Point values sum to 39 points or less.

Several procedures have been used to measure operational errors in the past. Before FY 2002, a straight count of all operational errors was used. This measure did not offer any differentiation between a technical violation and more severe operational errors. In FY 2002, only those operational errors with less than 80% separation were used as a control measure, with the presumption that this level of separation measured those operational errors with some degree of risk. Beginning in FY 2003, the focus was changed to measure those operational errors considered the most severe operational errors – those categorized as A or B.

Why the FAA Chooses this Measure

Separation is one of the fundamental principles of aviation safety – the need to maintain a safe distance from other aircraft, terrain, obstructions, and certain airspace not designated for routine air travel.

Source of the Data

FAA air traffic facilities have a software program called Operational Error Detection Patch (OEDP) that detects possible operational errors and sends alert messages to supervisory personnel. Facility management reviews OEDP alerts and data provided from the National Track Analysis Program (NTAP) to determine if an operational error has occurred. Controllers are required to report operational errors. The information is summarized in the FAA Air Traffic Operational Error and Deviation Database.

Statistical Issues

N/A

Completeness

The data is typically not finalized for 90 days following the close of the fiscal year. The FAA's Air Traffic Order 7210.56 requires all facilities to submit operational error reports within 3 hours of the event. FAA has implemented procedures that require facilities to conduct random audits of radar data to identify potential unreported operational errors. FAA Headquarters also conducts random audits of selected facilities based on the identification of unreported events. Facility management and personnel are subject to punitive action for non-compliance in reporting operational errors.

Reliability

FAA uses performance data extensively for program management, personnel evaluation and accountability, in prioritizing its facility evaluations and audits. The data is also used on a daily basis to track progress of achieving performance goals. Annual operational error incident data are used to provide a statistical basis for research and analysis. The FAA verifies and validates the accuracy of the data through reviews or preliminary and final reports. Reconciliation of the databases is conducted monthly and anomalies are explored and resolved. In cases where major problems are identified, a request to re-submit is issued. The FAA conducts annual reviews of reported data and compares the data with data reported from previous years.

SAFETY
Safety Risk Management

Federal Aviation Administration

FY 2006 Performance Target

"Apply safety risk management to at least 3 significant changes in the National Airspace System (NAS)."

Flight Plan Objective and Performance Target

Objective 5: Enhance the Safety of FAA's air traffic systems.

Performance Target: By 2010, apply Safety Risk Management (SRM) to at least 22 significant changes in the NAS.

	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006
Target	N/A	N/A	N/A	3	3
Actual	N/A	N/A	N/A	3	

Definition of Measure

Unit of Measure: The number of significant changes to the NAS in which the SRM process has been applied.

Computation: As a metric, the FAA will count the number of Safety Risk Management Documents (SRMDs), or safety cases, approved.

Formula: N/A

Scope of Measure: In FY 2004, the FAA developed the FAA SMS Manual. This manual describes the requirements for the various components/functions of the SMS, including safety risk management. The application of safety risk management will be measured against these requirements.

Since these are new requirements, training is necessary to allow the operational service units in the Air Traffic Organization (ATO) to meet them. The ATO will track who attends SMS and safety risk management training. In addition, the ATO Safety Service will measure/track the application of the safety risk management through reviewing data on changes to the NAS, identifying which are safety-significant, and auditing the application of safety risk management to those changes that are safety significant.

Why the FAA Chooses this Measure

Safety risk management is a systematic, explicit, and comprehensive approach for managing safety risk at all levels and throughout the entire scope of an operation and lifecycle of a system. It requires the disciplined assessment and management of safety risk. The safety risk management process ensures that safety-related changes are documented; risk is assessed and analyzed; unacceptable risk is mitigated; hazards are identified and tracked to resolution; the effectiveness of the risk mitigation strategies is assessed; and the performance of the change is monitored throughout its lifecycle. Applying safety risk management prior to implementing changes to the NAS will ensure that unacceptable risk is not introduced. It will also improve the documentation of the processes used to ensure the safety of the NAS.

The ATO will also track who attends SMS and safety risk management training. While this measure is not part of the Flight Plan SRM Performance target, the number of employees trained has a direct impact on the application of SRM to safety-significant changes. Personnel must be trained in SRM before they can be expected to complete the safety analysis required for SRM. The ATO Safety Service is working with the ATO Workforce Planning Directorate to track training attendance for both the SMS Overview course and the safety risk management. In addition, the Safety Service will measure and track the application of the SRM by reviewing data on changes to the NAS, identifying which are safety-significant, and auditing the application of safety risk management to those changes that are safety significant.

The SRM is a new requirement. While FAA organizations regularly apply processes to assure the safety of the NAS, these processes are not specifically included in SRM as described in the FAA SMS Manual. Given the FAA's decades long safety record, which has ensured that the NAS is among the safest airspace system in the world, SRM will build upon these existing processes. The targets were developed based on lessons learned from international service providers, as well as from similar organization-wide implementations in the FAA

Source of the Data

The ATO Safety Service is working with ATO operational service units to compile a repository of hazards associated with changes to the NAS in a database known as the FAA Hazard Tracking System. In addition, WebCM is being updated to require SRM on all NAS Change Proposals. This data will then be used to audit the application of safety risk management.

Statistical Issues

N/A

Completeness

Each ATO Service Unit is responsible for ensuring that safety analyses are documented, complete and accurate.

Reliability

ATO-S will approve certain SRMDs and will check for Service Unit compliance with SRM via an audit process that is currently in development.

CAPACITY
Average Daily Airport Capacity (35 OEP Airports)

Federal Aviation Administration

FY 2006 Performance Target

"Increase the average daily arrival plus departure called rates at the 35 Operational Evolution Plan (OEP) airports to 101,191."

Flight Plan Objective and Performance Target

Objective 1: Increase capacity to meet projected demand.

Performance Target: Achieve an average daily airport capacity of 104,338 arrivals and departures per day by FY 2008 and maintain through FY 2010 at the 35 OEP airports.

	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006
Target	N/A	N/A	N/A	99,892	101,191
Actual	99,538	98,488	100,041	101,463	

Definition of Measure

Unit of Measure: Average of daily arrival and departure rates.

Computation: Average Daily Airport Capacity is the sum of the daily hourly-called arrival and departure rates at the relevant airports per month, divided by the number of days in the month. The annual capacity level is the weighted sum of the monthly capacity levels.

Formula:

$$\text{Monthly Avg Daily Airport Capacity} = \frac{\text{Daily Hourly Called Arrival \& Departure Rates}}{\text{Number of Days in the Month}}$$

Scope of Measure: Only the 35 airports in the OEP are included in this measure. Each airport facility determines the number of arrivals and departures it can handle for each hour of each day, depending on conditions, including weather. These numbers are the called arrival and departure rates of the airport for that hour. Data are summed for daily, monthly, and annual totals.

Why the FAA Chooses this Measure

Growth in air travel has generally been accomplished by increasing the number of flights. Measuring the growth of airport capacity indicates the limit at which increased service can be accommodated without affecting delay.

Source of the Data

The Aviation System Performance Metrics (ASPM) database, maintained by the FAA's Office of Aviation Policy and Plans, provides the data for this metric. By agreement with the FAA, ASPM flight data is filed by certain major air carriers for all flights to and from most large and medium hubs, and is supplemented by flight records contained in the Enhanced Traffic Management System (ETMS) and flight movement times provided by Aeronautical Radio, Inc. (ARINC). Also included within ASPM are arrival and departure rates provided by the individual facilities.

Statistical Issues

N/A

Completeness

Fiscal year data is finalized approximately 90 days after the close of the fiscal year.

Reliability

The reliability of ASPM is verified on a daily basis by the execution of a number of audit checks, comparison to other published data metrics, and through the use of ASPM by over 1500 registered users.

CAPACITY
Annual Service Volume

Federal Aviation Administration

FY 2006 Performance Target

"Increase the Annual Service Volume (AVS) of the 35 OEP airports by at least 1%, measured as a five year moving average. Commission four new runway projects."

Flight Plan Objective and Performance Target

Objective 1: Increase airport capacity to meet projected demand.

Performance Target: Commission as many as eight new runway projects, increasing the annual service volume of the 35 OEP airports by at least 1 percent annually, measured as a five-year moving average, through FY 2010.

	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006
Target	N/A	N/A	1% 2 runways	1% 0 runways	1% 4 runways
Actual	0.28% 1 runway	0.67% 3 runways	1.07% 2 runways	1.01% 0 runways	

Definition of Measure

Unit of Measure: Average number of aircraft operations that can reasonably be expected to occur in a year. Total of runway projects commissioned during the current fiscal year.

Computation: This measure is a 5-year moving average. The 1998 ASV is the base year. ASV is calculated using the Runway Delay Simulation Model (RDSIM). Delay curves are developed for each of the 35 OEP airports for the existing airport layout and with new runways where proposed. A consistent calculation technique to estimate capacity used for all airports, based on demand schedules and fleet mixes, supplemented with flight counts and standard air traffic control procedures for each airport. For those airports where new runways are to be commissioned, the ASV can be estimated any time in the year that the runway will be opened.

Formula: N/A

Scope of Measure: This measure estimates the benefit, in terms of additional aircraft operations, from runway construction projects. A runway construction project includes new runways, runway extensions, and airfield reconfigurations. Aircraft operations include air carrier, commuter, air taxi, general aviation, and military aircraft. Only the 35 OEP airports are included in this measure.

Why the FAA Chooses this Measure

The ASV measure is intended to estimate and track the increase in airport capacity at airports. This measure is calculated as a five year moving average. It is calculated in this way to smooth out peaks and valleys associated with yearly variability in new runway openings. The 1998 ASV is the base year. There were no new runways opened in FY 1999, and one new runway in each of the fiscal years 2000, 2001, and 2002, which added 0.78% to the overall capacity total of those years. The FAA did not begin reporting on the increase until FY 2004. The moving average from FY 1998 through FY 2002 was an increase of 0.28%. In 2003, three new runways opened adding 2.51% more capacity resulting in a five year moving average of 0.67%. Two additional runways were opened in FY 2004, adding an additional 1.91% to the Nation's total and resulting in a five year moving average of 1.07%. 4 runways will open in FY 2006, adding 3.27% more capacity and resulting in a 5-year moving average of 1.67%.

Source of the Data

Demand schedules and fleet mixes are developed from recent Official Airline Guide (OAG) information Flight counts are obtained from airport traffic control tower logs. In addition, standard air traffic control procedures are used for each airport.

Statistical Issues

This measure is derived from model estimates that are subject to errors in model specification.

Completeness

The NAS Advanced Concept Branch (ACT-540) continues to provide technical support to develop a consistent method of calculating the individual airport ASV through the Office of System Capacity at the FAA Technical Center, Atlantic City, NJ.

Reliability

Recalculations of the original ASV studies have not been necessary. Once developed, the delay curves remain accurate unless a major change in fleet mix or operational characteristics occurs at an airport.

CAPACITY
Adjusted Operational Availability

Federal Aviation Administration

FY 2006 Performance Target

"Sustain adjusted operational availability at 99.5% for the reportable facilities that support the 35 OEP airports."

Flight Plan Objective and Performance Target

Objective 1: Increase capacity to meet projected demand.

Performance Target: Sustain adjusted operational availability at 99.5% for the reportable facilities that support the 35 OEP airports through FY 2010.

	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006
Target	N/A	N/A	99%	99%	99.5%
Actual*	99.83%	99.74%	99.72%	99.76%	

* Measure redefined in FY 2005 to exclude outages due to scheduled improvements. Results for FY 2002 – FY 2004 have been recalculated.

Definition of Measure

Unit of Measure: Ratio of total available hours minus outage time to total available hours.

Computation: Adjusted Operational Availability (OA_{ADJ}) is calculated by dividing the maximum facility/service hours minus all outage time except for improvements (cause code 62 outages) by the total maximum facility/service hours, and multiplying by 100 to express the ratio as a percentage.

Formula:

$$OA_{ADJ} = \frac{\text{Total Available Hours - (Total Outage Time - Code 62 Outage Time)}}{\text{Total Available Hours}} \times 100$$

Scope of Measure: The National Airspace Performance Reporting System (NAPRS) facilities necessary to maintain the provision of service in the NAS overall have been determined and are monitored. For this measure, those NAPRS reportable facilities necessary for the provision of service at the 35 OEP airports have been separately measured. Time out of service is adjusted to exclude hours when equipment is unavailable due to scheduled improvement (cause code 62) down time.

Why the FAA Chooses this Measure

The availability of the equipment necessary to provide service directly affects the performance of the NAS. Loss of radar or communications equipment will affect the speed and number of aircraft that can be handled where that loss occurs. The ability of the NAS to continually provide guidance is crucial, and affects both safety and capacity. The adoption of this metric has the additional advantage of linking three capacity measures. On-Time NAS Arrivals are affected by the airport and en-route capacity, which are directly impacted by the availability of the equipment and facilities supporting that capacity.

Source of the Data

The National Airspace System Performance Analysis System (NASPAS). NASPAS was developed to analyze outages of the Air Traffic Control Facilities in the NAS maintained by the FAA. NASPAS receives monthly updates of outage data from the National Outage Database (NODB). The Maintenance Management System (MMS) contains individual equipment outage data as recorded by the system specialist.

Statistical Issues

N/A

Completeness

The FAA's Quality Assurance and Performance Team, under ATO-W, conducts a monthly review of all Log Interrupt Reports (LIRs) that are entered into the MMS to ensure that the data which resides in the NODB is as complete and accurate as possible.

Reliability

The National Airspace System Performance Analysis System is the official source of equipment and service performance data for the Federal Aviation Administration.

CAPACITY
Average Daily Airport Capacity (8 Metro Areas)

Federal Aviation Administration

FY 2006 Performance Target

"Increase the average daily arrival plus departure called rates at the eight major metropolitan areas to 68,750."

Flight Plan Objective and Performance Target

Objective 2: Increase or improve aviation capacity in the eight major metropolitan areas and corridors that most affect total system delay.

Performance Target: Achieve an average daily airport capacity for the eight major metropolitan areas of 68,750 arrivals and departures per day by FY 2010.

	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006
Target	N/A	N/A	21,290	43,080	68,750
Actual*	21,101	21,147	21,233	44,324	

* Measure redefined in FY05 to include departures as well as arrivals. Results for FY 2002 – FY 2004 are for original measure. Different airports included in measure starting in FY 2006. New increased target reflects this change.

Definition of Measure

Unit of Measure: Average of daily arrival and departure rates.

Computation: Average Daily Airport Capacity is the sum of the daily hourly-called arrival and departure rates at the relevant airports per month, divided by the number of days in the month. The annual capacity level is the weighted sum of the monthly capacity levels.

Formula:

$$\text{Monthly Avg Daily Airport Capacity} = \frac{\text{Daily Hourly Called Arrival \& Departure Rates}}{\text{Number of Days in the Month}}$$

Scope of Measure: For FY 2006, only the airports in these eight areas are included in this measure: New York, Philadelphia, South Central Florida, Chicago, Washington/Baltimore, Atlanta, the Los Angeles Basin, and the San Francisco Bay Area. Each airport facility determines the number of arrivals and departures it can handle for each hour of each day, depending on conditions, including weather. These numbers are the called arrival and departure rates of the airport for that hour. Data are summed for daily, monthly, and annual totals.

Why the FAA Chooses this Measure

Growth in air travel has generally been accomplished by increasing the number of flights. Measuring the growth of airport capacity indicates the limit at which increased service can be accommodated without affecting delay. The selected eight metropolitan areas contain both the most congested airspace and the airports with the greatest constraints on airport expansion. Airport improvements, measured by increases in capacity at these airports, are likely to contribute the most to reduce the causes of system delay.

Source of the Data

The Aviation System Performance Metrics (ASPM) database, maintained by the FAA's Office of Aviation Policy and Plans, provides the data for this metric. By agreement with the FAA, ASPM flight data is filed by certain major air carriers for all flights to and from most large and medium hubs, and is supplemented by flight records contained in the Enhanced Traffic Management System (ETMS) and flight movement times provided by Aeronautical Radio, Inc. (ARINC). Also included within ASPM are arrival and departure rates provided by the individual facilities.

Statistical Issues

Data for several of the smaller metropolitan area airports is currently unavailable. Estimates for these are used until all of the airports are included in ASPM.

Completeness

Fiscal year data is finalized approximately 90 days after the close of the fiscal year.

Reliability

The reliability of ASPM is verified on a daily basis by the execution of a number of audit checks, comparison to other published data metrics, and through the use of ASPM by over 1500 registered users.

CAPACITY
NAS On-Time Arrivals

Federal Aviation Administration

FY 2006 Performance Target

"Achieve a NAS On-Time Arrival percentage of 87.4% for all flights arriving at the 35 Operational Evolution Plan (OEP) airports, where on-time is equal to no more than fifteen minutes late."

Flight Plan Objective and Performance Target

Objective 3: Increase on-time performance of scheduled carriers

Performance Target: Through FY 2010, maintain an 87.4% on-time arrival for all flights arriving at the 35 OEP airports, no more than 15 minutes late due to NAS-related delays.

	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006
Target*	77.20%	78.20%	82.10%	87.40%	87.40%
Actual	82.26%	82.30%	79.07%(r)	88.44%	

* Measure and target redefined in FY 2005 to exclude delays not NAS-related – see Computation section below. Targets and results for FY 2002 – 04 for original measure.
(r) Revised

Definition of Measure

Unit of Measure: Percentage of flights arriving no more than 15 minutes late.

Computation: NAS On-Time Arrival is the percentage of all flights arriving at the 35 OEP airports equal to or less than 15 minutes late, based on the carrier flight plan filed with the FAA, and excluding minutes of delay attributed by air carriers to weather, carrier action, security delay, and prorated minutes for late arriving flights at the departure airport. The number of flights arriving on or before 15 minutes of flight plan arrival time is divided by the total number of completed flights.

Formula:

$$\frac{\text{NAS On - Time Flights}}{\text{Total Flights}}$$

Scope of Measure: A flight is considered on time if it arrives no later than 15 minutes after its published, scheduled arrival time. This definition is used in both the DOT Airline Service Quality Performance (ASQP), and Aviation System Performance Metrics (ASPM) reporting systems. Air carriers, however, also file up-to-date flight plans for their services with the FAA that may differ from their published flight schedules. This metric measures on-time performance against the carriers filed flight plan, rather than what may be a dated published schedule.

The time of arrival of completed passenger flights to and from the OEP 35 airports is compared to their flight plan scheduled time of arrival. For delayed flights, delay minutes attributable to extreme weather, carrier caused delay, security delay, and a prorated share of delay minutes due to a late arriving flight at the departure airport are subtracted from the total minutes of delay. If the flight is still late, it is counted as a delayed flight attributed to the National Aviation System (NAS) and the FAA.

Why the FAA Chooses this Measure

On-Time performance is a measure of the ability of the FAA to deliver services. A major weakness of using air carrier scheduled on-time performance as a metric is that it contains flight delays caused by incidents outside the FAA's control. However, the air carriers have supplied the causation of flight delay, by flight, since June 2003 under revised Part 234 instructions. Removal of those delays not attributable to the FAA provides a more accurate and equitable method of measuring the FAA's performance.

Source of the Data

The Aviation System Performance Metrics (ASPM) database, maintained by the FAA's Office of Aviation Policy and Plans, supplemented by DOT's Airline Service Quality Performance (ASQP) causation database, provides the data for this metric. By agreement with the FAA, ASPM flight data is filed by certain major air carriers for all flights to and from most large and medium hubs, and is supplemented by flight records contained in the Enhanced Traffic Management System (ETMS) and flight movement times provided by Aeronautical Radio, Inc. (ARINC).

Statistical Issues

Data is not reported for all carriers, only the 19 carriers reporting monthly into the ASQP reporting system.

Completeness

Fiscal year data is finalized approximately 90 days after the close of the fiscal year.

Reliability

The reliability of ASPM is verified on a daily basis by the execution of a number of audit checks, comparison to other published data metrics, and through the use of ASPM by over 1500 registered users. ASQP data is filed monthly with DOT under 14 CFR Part 234, Airline Service Quality Performance Reports, which separately requires reporting by major air carriers on flights to and from all large hubs.

CAPACITY
Noise Exposure

Federal Aviation Administration

FY 2006 Performance Target

"Reduce the number of people exposed to significant noise, as measured by a three-year moving average, to 4% below the three-year average for calendar years 2000-2002."

Flight Plan Objective and Performance Target

Objective 4: Address environmental issues associated with capacity enhancements.

Performance Target: Reduce the number of people exposed to significant noise by 1% per year through FY 2010, as measured by a three-year moving average, from the three-year average for calendar years 2000-2002.

	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006
Target	N/A	- 1%	- 2%	- 3%	- 4%
Actual	N/A	- 15%(r)	- 27%(r)	- 27%#	

(r) Revised; (#) Projection from trends

Definition of Measure

Unit of Measure: Percentage reduction in number of people who are exposed to significant noise levels.

Computation: The estimates of the number of people exposed to significant noise are calculated from the Model for Assessing Global Exposure to the Noise of Transport Aircraft (MAGENTA). The computational core of MAGENTA is FAA's Integrated Noise Model (INM), the most widely used computer program for the calculation of aircraft noise around airports. Major assumptions on local traffic utilization come from obtaining INM datasets that were developed for an airport.

The MAGENTA model calculates individual DNL contours for the top 96 US airports using INM. The contours are superimposed on census data to calculate the number of people within the DNL 65 dB contour at each airport. For smaller airports, a procedure is used where contour area is calculated from airport operations data using a statistical relationship. The contours areas are then used to calculate people exposed using census population densities. The individual airport exposure data is then summed to the national level. Finally, the number of people relocated through the Airport Improvement Program is subtracted from the total number of people exposed.

Formula: The number of people exposed to significant aircraft noise is calculated as follows:

$$\sum_{i=1}^{261} POP65_i - \sum_{j=1}^{9} POPREL_j$$

Where, $POP65_i$ is the number of people residing in the DNL 65 dB contour at the i^{th} MAGENTA airport as of the 2000 Census. $POPREL_j$ is the number of people relocated from the DNL 65 dB contour in the j^{th} FAA region since the year 2000.

Scope of Measure: The measure tracks the residential population exposed to significant aircraft noise around U.S. airports. Significant aircraft noise is defined as aircraft noise above a Day-Night Sound Level (DNL) of 65 decibels. Exposure in a given year is reported as a three-year historical average. For example, exposure in 2003 is reported as the three-year average of 2001 to 2003. In 1981, the FAA issued 14 CFR Part 150, Airport Noise Compatibility Planning, and as part of that regulation, formally adopted Day Night Sound Level. Day Night Sound level, abbreviated as DNL and symbolized as Ldn, is the 24-hour average sound level, in decibels (dB), obtained from the accumulation of all events with the addition of 10 decibels to sound levels in the night from 10 PM to 7 AM. The weighting of the nighttime events accounts

for the increased interfering effects of noise during the night when ambient levels are lower and people are trying to sleep. In the promulgation of 14 CFR Part 150, the FAA also published a table of land uses that are compatible or incompatible with various levels of airport noise exposure in DNL. This table established that levels below DNL 65 dB are considered compatible for all indicated land uses and related structures without restriction.

Why the FAA Chooses this Measure

Mitigating noise directly impacts our ability to increase capacity. Although building new runways is the best way to increase capacity, communities and local government are reluctant to build them if they impose increased aircraft noise exposure. By mitigating and reducing exposure to excessive noise, the FAA can help communities accept more runways in their areas.

The number of people exposed to significant noise levels was reduced by about 90% between 1975 and 2000. This is due primarily to the legislatively mandated transition of airplane fleets to newer generation aircraft that produce less noise. Most of the gains from quieter aircraft were achieved by FY 2000. The remaining problem must be addressed primarily through airport-specific noise compatibility programs. The FAA pursues a program of aircraft noise control in cooperation with the aviation community through noise reduction at the source (development and adoption of quieter aircraft), soundproofing and buyouts of buildings near airports, operational flight control measures, and land use planning strategies. FAA is authorized to provide funds for soundproofing and residential relocation, but each project must be locally sponsored and be part of a noise compatibility program prepared by the airport sponsor and approved by the FAA.

This noise target is based on FAA's historical experience and reflects the relocation of people from the DNL 65 contour through grant funding. Market forces that drive changes in commercial aircraft fleets and operations affect the target. FAA's noise assessment identified the historical rate (percent reduction in the number of people in the U.S. who are exposed to significant aircraft noise levels) to be approximately 0.5% per year since the year 2000. In consideration of the dynamic market forces beyond our control, FAA selected an aggressive, yet meaningful, goal to pursue doubling (2x) the reduction trend to 1%. Any higher goal is unrealistic given that FAA recognizes the return of air traffic growth and the corresponding increase of associated noise. Achieving 1% will continue to be a huge challenge due to the projections of National Airspace System growth and to the available noise mitigation approaches currently at our disposal (i.e., regulatory noise limits, flight operational abatement procedures, and airport land use planning guidance).

Source of the Data

In 1997, the FAA initiated a project to collect airport noise analysis databases for a large number of the world's airports. This sample database of airports would be the basis for assessing worldwide trends that would occur as the result of stringency, different land-use planning initiatives and operational procedures. The objective was to develop a tool that could be used by the Committee on Aviation Environmental Protection (CAEP) under the International Civil Aviation Organization (ICAO). Previous attempts by CAEP to globally assess aircraft noise exposure had limited success. The proposed FAA methodology had much more promise, as the number of sample databases was large and has since grown to around 200. Furthermore, a generalized methodology was included to account for airports for which noise databases did not exist. Based on the initial success of the FAA activity, the fourth meeting of CAEP (CAEP4) recommended that a task group be formed to complete the development of this tool for CAEP analysis.

This group and subsequently the model became known as MAGENTA (Model for Assessing Global Exposure form Noise of Transport Airplanes). The MAGENTA population exposure methodology has been thoroughly reviewed by this ICAO task group and was validated for several airport specific cases. MAGENTA played an important role in the setting of new international aircraft noise standards by CAEP in 2001. CAEP used MAGENTA to assess the benefits (reduction in number of people exposed to aircraft noise) of several noise stringency proposals. FY2000 was the first year MAGENTA was used to track the aircraft noise exposure goal in the DOT Performance Plan.

A U.S. version of the global MAGENTA model, which used input data to determine the noise exposure in the U.S. on aircraft and operations specific to U.S. airports, was developed in 2002. The general, regional FESG forecast used in the CAEP version of MAGENTA was replaced by the FAA Terminal Area Forecast (TAF), which provides current and accurate information on how operations will increase on an airport specific basis.

The new U.S. version of MAGENTA also uses updated population data from the 2000 Census. The U.S. version of MAGENTA has evolved over time as more comprehensive databases were incorporated to improve the accuracy of the model. The data source for airport traffic changed from the Official Airline Guide (OAG) to the FAA Enhanced Traffic Management System (ETMS). Unlike OAG, the ETMS database includes unscheduled air traffic, which allows for more accurate modeling of freight, general aviation, and military operations. The ETMS also provides more details on aircraft type for a more accurate distribution of aircraft fleet mix. Under the old model, unscheduled traffic was estimated and adjustments in the number of people exposed were made at the national level.

Data on the number of people relocated through the Airport Improvement Program is collected from FAA regional offices. Local traffic utilization data is collected from individual airports and is updated periodically.

Statistical Issues

This measure is derived from model estimates that are subject to errors in model specification. FAA has replaced the actual number of people exposed to significant noise with the percent decrease in the number of people exposed, measured from the three-year average for calendar year 2000-2002. Moving to the 3-year average stabilizes noise trends, which can fluctuate from year to year and are affected by unusual events such as the 9/11 attacks and the subsequent economic downturn. The 2000–2002 base time periods includes these events and is the same 3-year period used for the emissions goal.

The move from actual numbers to percent helps avoid confusion over U.S. noise exposure trends caused by annual improvements to the noise exposure model. A major change to MAGENTA (Model for Assessing the Global Exposure of Noise because of Transport Airplanes) resulted in a significant improvement in the estimate of the number of people exposed to significant noise levels around US airports. Until now, the scope of the measure included scheduled commercial jet transport airplane traffic at major U.S. airports. With access to better operational data sources, the scope of the MAGENTA calculation has expanded to include unscheduled freight, general aviation, and military traffic. The expanded scope of operations results in an increase in the estimate of the number of people exposed to significant noise.

The *growth* in the number of people exposed results from improvements in measurement, not a worsening in aviation noise trends. Planned improvements to MAGENTA will continue to increase the estimate of the number of people exposed to aircraft noise, giving the false impression that aircraft noise exposure is increasing. Changing the noise performance goal to an annual percent change in aircraft noise exposure will better show the trend in aircraft noise exposure. The change will also make the Government Performance Review Act (GPRA) goal consistent with the FAA Flight Plan goal.

Completeness

No actual count is made of the number of people exposed to aircraft noise. Aircraft type and event level are current. However, some of the databases used to establish route and runway utilization were developed from 1990 to 1997, with many of them now over seven years old. Changes in airport layout including expansions may not be reflected. The FAA continues to update these databases as they become available. The benefits of federally funded mitigation, such as buyout, are accounted for.

The noise studies obtained from U.S. airports have gone through a thorough public review process; either under the National Environmental Policy Act (NEPA) requirements or as part of a land use compatibility program.

Reliability

The Integrated Noise Model (the core of the MAGENTA model) has been validated with actual acoustic measurements at both airports and other environments such as areas under aircraft at altitude. External forecast data are from primary sources. The MAGENTA population exposure methodology has been thoroughly reviewed by an ICAO task group and was most recently validated for a sample of airport-specific cases.

CAPACITY
Aviation Fuel Efficiency

Federal Aviation Administration

FY 2006 Performance Target

"*Improve aviation fuel efficiency per revenue plane-mile by 5%, as measured by a three-year moving average, from the three-year average for calendar years 2000-2002.*"

Flight Plan Objective and Performance Target

Objective 4: Address environmental issues associated with capacity enhancements.

Performance Target: Improve aviation fuel efficiency as indicated from the amount of fuel burned per revenue plane-mile by 5%, measured by a three-year average for calendar years 2003-2005, from the three-year average for calendar years 2000-2002, and maintain that level of achievement in the face of increased capacity and air traffic through FY 2010.

	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006
Target	N/A	N/A	- 1%	- 2%	- 5%
Actual	N/A	N/A	- 3.46%(r)	- 5.84%#	

(r) Revised; (#) Projection from trends

Definition of Measure

Unit of Measure: Percentage reduction in grams of fuel burned per kilometers flown.

Computation: FAA measures this target using SAGE – the System for assessing Aviation Global Emissions, which is a computer model that estimates aircraft fuel burn and emissions for variable-year inventories and for operational, policy, and technology-related scenarios. For this target, SAGE is used to generate annual fuel burn and total distance flown data for all U.S. commercial operations.

In FY 2004, baseline fuel efficiency was calculated by averaging fuel burn for calendar years 2000-2002 and then dividing by average total distance flown. FY 2004 performance was calculated for the three years (2001-2003) by dividing average fuel burn by average total distance to determine the three-year efficiency average. Further, operational data calculations from one representative week during the month of May indicated FY 2004 performance to be a 4.51% improvement in fuel efficiency for the three year efficiency average (2001-2003) as compared to the baseline.

For FY 2005 performance, an enhanced SAGE model was used which allowed analysis of full year operational data. For comparative consistency the analysis completed under the FY 2004 Flight Plan including the baseline fuel efficiency was re-computed.

For FY 2005 performance the three-year average for 2002-2004 was calculated and compared against the revised baseline and FY 2004 performance for trend analysis. SAGE calculated the amount of fuel burned in teragrams (Tg), equal to 10^{12} grams, and distance in nautical miles. The distance data are converted to billions of kilometers to facilitate the efficiency calculation in terms of Tg of fuel burned per billions of kilometers flown, or Tg/Bk. The baseline for this performance target was calculated by averaging the annual SAGE-generated fuel burn for calendar years 2000, 2001, 2002 and dividing by the average total distance flown over that three year period (68.27Tg/14.77Bk = 4.62 Tg/Bk).

FY 2004 performance was re-calculated based upon full year operational data for the three calendar year period of 2001, 2002, 2003 and dividing by the average total distance flown over that three-year period (65.36Tg/14.66Bk = 4.46 Tg/Bk). FY 2005 performance was calculated based upon full year operational data for the

most recent three years (2002, 2003, 2004) and dividing average fuel burn by average total distance to determine the three year efficiency average (65.40Tg/15.05Bk = 4.35 Tg/Bk). With the baseline considered to be 100%, the three-year efficiency average for each performance period is compared to determine the percentage improvement of aviation fuel efficiency.

FY 2006 performance will be calculated based upon full year operational data for the three calendar year period of 2003, 2004, and 2005, dividing average fuel burn by average total distance to determine the three year efficiency average which will be compared against the re-calculated baseline mentioned above.

Formula:

$$\text{Efficiency} = \frac{\text{Average Fuel Burn (Tg)}}{\text{Average Distance (billions of kilometers)}}$$

(Fuel Burn values in Tg where 1 Tg = 10^{12} g)

Scope of Measure: This measure focuses on all U.S. commercial operations.

Why the FAA Chooses this Measure

Although today's aircraft are up to 70% more efficient than early commercial jet aircraft, there is growing attention being given to aviation's impact on the environment. Aviation is currently viewed as a small contributor to those greenhouse gas emissions that have the potential to influence global climate. However the science involved with these emissions in the upper atmosphere is still evolving and many uncertainties still exist. Carbon dioxide (CO_2) emissions are a primary greenhouse gas and are directly related to the fuel burned during the aircraft's operation.

Measuring and tracking fuel efficiency from aircraft operations allows FAA to monitor improvements in aircraft/engine technology and operational procedures and enhancements in the airspace transportation system. This information provides an assessment of their influence on reducing aviation's emissions contribution.

Source of the Data

The SAGE system uses radar-based data from the Enhanced Traffic Management System (ETMS) and Official Airline Guide (OAG) schedule information to generate annual inventories of fuel burn and total distance flown data for all U.S. commercial operations.

Statistical Issues

Potential seasonal variability and variability from year to year can be expected when analyzing air traffic data and commercial operations. Use of the statistical measure of a three-year moving average based upon analysis of annual operations should address this variability.

The extent to which enhancements are incorporated to improve model accuracy, via more robust aerodynamic performance modeling algorithms and database of aircraft/engine fuel burn information, will impact the overall results and thus the performance target. This could create some statistical variability from year to year if not properly taken into account. In cases where such enhancements have the potential to create a significant shift in baseline, annual inventories may need to be re-processed and/or adjusted to ensure consistency and accuracy of results.

The extent to which aircraft fleet improvements cannot be sufficiently modeled because of a lack of manufacturer proprietary data may also influence the performance target results. In this case attempts will be made to characterize such aircraft with the best publicly available information, recognizing that newer aircraft types in the fleet will likely exist in significantly lesser numbers, thus minimizing the influence upon the results.

Completeness

Data used to measure performance against the target is assessed for quality control purposes. Input data for the SAGE model are validated before proceeding with model runs. Radar data from the ETMS are assessed to remove any anomalies, check for completeness, and pre-processed for input to the SAGE model. ETMS data are verified against the OAG information in order to avoid any duplication of flights in the annual inventory.

In some cases ETMS data lack appropriate fields to conduct quality control and in these cases the data is removed. Data from the SAGE model is verified by comparing output from previous years and analyzing trends to ensure that they are consistent with expectations. In some cases monthly inventories may be analyzed to validate the results. Model output is subsequently post-processed through excel worksheets to perform the calculations for the performance target. Formulae and calculations are checked in order to ensure accuracy.

Full documentation of this target is determined when the annual inventories have been accomplished and the post-processing calculations have been completed, resulting in a percentage reduction in fuel efficiency relative to the baseline. The standard for this documentation is set by the FAA Office of Environment and Energy, which is separate from the organization (DOT Volpe National Transportation Systems Center) responsible for input and output associated with the SAGE model runs and annual inventories.

Reliability

The measuring procedure used for this performance target is highly reliable. That is to say that the processing of data through the SAGE model including the performance of algorithms is not subject to random factors that could influence the results. However this performance target is potentially influenced by factors outside the control of the FAA. For example a major sustained disruption or enhancement in air traffic and/or a significant shift in commercial operations amongst airlines, including changes in fleet composition and missions could have a profound impact upon the performance target.

The FY 2005 performance results should not be used as an indicator of future performance. The fuel efficiency improvements indicated by this result are still being influenced by air carrier fleet and operational changes that took place in the aftermath of September 11, 2001. It is expected that a return to more typical fleet compositions and flight mission length distributions, along with air traffic growth, will result in degradations of fuel efficiency that may not be fully offset by improvements in airframe and engine technologies.

INTERNATIONAL LEADERSHIP
Aviation Safety Leadership

Federal Aviation Administration

FY 2006 Performance Target

FY 2006 target under review.

Flight Plan Objective and Performance Target

Objective 1: Promote improved safety and regulatory oversight in cooperation with bilateral, regional, and multilateral partners.

Performance Target: By FY 2010, continue to reduce the five-year rolling average commercial air carrier fatal accident rate in key regions or countries experiencing substantial growth in aviation operations by 10% from the 2000-2005 baseline. (New measure for FY 2006, but retains name of FY 2005 measure it replaces)

	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006
Target	N/A	N/A	N/A	N/A	TBD
Actual	N/A	N/A	N/A	N/A	

Definition of Measure: Under Review

Unit of Measure:

Computation:

Formula:

Scope of Measure:

Why the FAA Chooses this Measure

Source of the Data

Statistical Issues

Completeness

Reliability

INTERNATIONAL LEADERSHIP
Bilateral Safety Agreements

Federal Aviation Administration

FY 2006 Performance Target

"Conclude at least two (new or expanded) bilateral safety agreements that will facilitate an increase in the ability to exchange aviation products and services."

Flight Plan Objective and Performance Target

Objective 1: Promote improved safety and regulatory oversight in cooperation with bilateral, regional, and multilateral partners

Performance Target: Conclude at least eight (new or expanded) bilateral safety agreements that will facilitate an increase in the ability to exchange aviation products and services by FY 2010.

	2002	2003	2004	2005	2006
Target	N/A	N/A	2	2	2
Actual	N/A	N/A	3	2	

Definition of Measure

Unit of Measure: Number of executive agreements signed and/or implementation procedures agreements concluded.

Computation: Evidence of a signed executive agreement and/or evidence of the conclusion of all material negotiations for an implementation procedure.

Formula: N/A

Scope of Measure: The FAA uses two forms of Bilateral Agreements: executive agreements and implementation procedures. The executive agreement is signed by the Department of State and the target country's Ministry of Foreign Affairs. It lays the essential groundwork for cooperation between the two governments and their respective aviation authorities. Once executed, the negotiations for the second form of Bilateral Agreement, the implementation procedures, begin. Implementation procedures provide detailed operational safety and certification arrangements between the FAA and the target country's civil aviation authority. The implementation procedure is the operational portion of the bilateral agreement that allows for trade of aviation goods and services between the two countries. The target is achieved when either a new executive agreement is signed or a new or expanded implementation procedure agreement is concluded with the target country or regional authority.

Why the FAA Chooses this Measure

The purpose of a Bilateral Aviation Safety Agreement (BASA) is to promote aviation safety and environmental quality and to enhance cooperation and increase efficiency in matters related to civil aviation worldwide. Increasing globalization of aircraft manufacturing and airline operations and the interdependency between the United States and the foreign aviation sector is outpacing the FAA's ability to conduct oversight throughout the globe. By building a global network of competent civil aviation authorities and concluding agreements with additional countries and/or regional authorities, the FAA can have a significant impact on improved global understanding of U.S. safety regulations leading to more consistent international oversight.

BASAs are based on the recognition of comparability of the U.S. and foreign systems. They allow the FAA to rely upon the safety oversight capabilities and technical expertise of foreign civil aviation authorities, thereby minimizing duplication of efforts and opening new lines of communication. The FAA can then better focus on U.S. safety priorities while relying on competent foreign civil aviation authorities for those activities taking place overseas.

Source of the Data

The executive agreements are negotiated and maintained by the Department of State. The implementation procedures are negotiated and concluded by FAA. The official signed document is maintained at the FAA.

Statistical Issues

None.

Completeness

There are no completeness data issues associated with this measure since it is a simple count of the final signed new executive agreement or implementation procedures agreement.

This performance target is monitored monthly by tracking interim negotiation steps leading to completion of a BASA and tracking FAA internal coordination of the negotiated draft text.

The final signing of executive agreements is generally out of the control of the FAA. Many sovereign nations view these agreements as treaties that require legislative approval. The FAA and U.S. Government cannot control the timing of legislatures in other countries. Therefore, the FAA will count executive agreements only when signed. The negotiation of implementation procedures is more within FAA's control.

The signed document of the executive agreement constitutes evidence of completion. For implementation procedures, evidence will be some form of agreement between both parties that material negotiations are concluded. This can take the form of a signed agreement stating that fact, e-mail, meeting minutes, or other mutual agreement between the two parties that the implementation procedures agreement has been concluded.

Reliability

N/A

INTERNATIONAL LEADERSHIP
External Funding

Federal Aviation Administration

FY 2006 Performance Target

"Secure an increase of 20% in intellectual and financial assistance over the FY 2005 level."

Flight Plan Objective and Performance Target

Objective 1: Promote improved safety and regulatory oversight in cooperation with bilateral, regional, and multilateral partners.

Performance Target: Secure a yearly increase of 20% in external funding for international aviation activities from the United States and international government organizations, multilateral banks, and industry. (Measure renamed – previously known as "Intellectual and Financial Assistance".)

	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006
Target	N/A	N/A	20%	20%	20%
Actual	N/A	N/A	139%*	63%	

* Revised from preliminary result of 177% increase.

Definition of Measure

Unit of Measure: Percentage increase in total external funding secured.

Computation: The percentage difference between the current year and the previous year is calculated by dividing the difference between the two years by the total of the previous year.

Formula:

$$\text{Annual Increase} = \frac{\text{Current Year \$} - \text{Previous Year \$}}{\text{Previous Year \$}}$$

Scope of Measure: The success of this effort is measured in terms of the amount of new funding which the agency secures for international aviation infrastructure projects. The important metric is the amount of external funding that the FAA identifies and directs toward critical aviation infrastructure projects. For example, the FAA has secured funding from the U.S. Agency for International Development to support efforts to rehabilitate Afghanistan's civil aviation system. Additionally in FY 2005, the FAA collaborated with the U.S. Trade and Development Agency to fund a seminar in the Asia Pacific region to promote new aviation technologies.

Why the FAA Chooses this Measure

Often countries that could benefit the most from FAA technical assistance are the least able to afford it. This Flight Plan initiative seeks to leverage the limited resources that the FAA is able to contribute and provides program management of additional support from third party providers.

Source of the Data

The Office of International Aviation (API) develops the funding proposals, puts forward recommendations to funding organizations, and works closely with these sources to finalize the funding for each project.

Statistical Issues

N/A

Completeness

API tracks the progress of all funding proposals that the FAA develop and support. The funding secured from these proposals are the items used to measure success.

Reliability

Public documents (press releases, letters, contracts, memorandums of agreement, etc.) are used to verify the figures for this Flight Plan initiative.

INTERNATIONAL LEADERSHIP
GPS-Based Technologies

Federal Aviation Administration

FY 2006 Performance Target

"Expand the use of Global Positioning System (GPS)-based technologies and procedures to one priority country."

Flight Plan Objective and Performance Target

Objective 2: Promote seamless operations around the globe in cooperation with bilateral, regional, and multilateral aviation partners.

Performance Target: By FY 2010, expand the use of Global Positioning System-based technologies and procedures to five more priority countries.

	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006
Target*	N/A	N/A	N/A	1	1
Actual	N/A	N/A	N/A	1	

* Focus of measure changed from U.S. NAS technologies to GPS-based technologies and procedures in FY06. FY05 results are for original measure.

Definition of Measure

Unit of Measure: Total number of countries taking significant steps to implement the operational use of GPS-based technologies or procedures.
Target for FY 2006: 1 country
Actual for FY 2006: TBD later this year
Out year target: 1 country per year through 2010

Computation: A count of the countries involved that have achieved significant implementation milestones on GPS-based technologies or procedures.

Formula: N/A

Scope of Measure: Priority countries are those countries viewed by the FAA as strategic partners in global aviation. These countries include Canada, Mexico, Brazil, Japan, India, China, and Australia, among others just to name a few. GPS-based technologies include the basic GPS service, Wide Area Augmentation System (WAAS), Local Area Augmentation System (LAAS), Performance Based Navigation (RNAV/RNP), Automatic Dependent Surveillance Broadcast (ADS-B), and Air Traffic Flow Management (ATFM).

Why the FAA Chooses this Measure

By working with international civil aviation agencies, organizations and States, the FAA can continue to enhance its international leadership role by further encouraging the adoption of U.S. Global Positioning System (GPS)-based technologies and procedures. These same technologies and procedures are currently being implemented in the U.S. National Airspace System (NAS) and are also critical technologies and procedures needed to successfully establish the Joint Planning and Development Office's Next Generation Air Transportation System (NGATS). This global harmonization of aviation systems will increase the safety, capacity and efficiency of international aviation not only for U.S. carriers, but also for U.S. citizens traveling on foreign flag carriers.

Source of the Data

The Air Traffic Organization (ATO) Operations Planning International Office will monitor activity progress made by the various owners, mainly the ATO service units and FAA Office of International Aviation (API), and then determine which activity will close out this performance target for FY 2006. Data will then be collected to justify completeness.

Statistical Issues

N/A

Completeness

The FAA ATO Operations Planning International Office, as the owner of this initiative and performance target, is the office that collects all pertinent documentation related to the completion of this performance target, and then assesses if the performance target was successfully achieved.

Reliability

The FAA ATO Operations Planning International Office will coordinate with other supporting offices for this performance target, mainly the different ATO Service Units and the FAA Office of International Aviation (API) to cross-check and validate the successful completion of this performance target.

ORGANIZATIONAL EXCELLENCE
Employee Attitude Survey

Federal Aviation Administration

FY 2006 Performance Target

"Increase the Employee Attitude Survey scores in the areas of management effectiveness and accountability by at least 3 percent."

Flight Plan Objective and Performance Target

Objective 1: Make the organization more effective with stronger leadership, increased commitment of individual workers to fulfill organization-wide goals, and a better prepared, better trained, safer, diverse workforce.

Performance Target: Increase the Employee Attitude Survey scores in the areas of management effectiveness and accountability by at least 5 percent by FY 2010.

	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006
Target	N/A	Baseline	No Target	1.5%*	3%
Actual	N/A	35%	N/A	2%	

***** Interim survey conducted on a sample of the FAA workforce. FY 2003 survey was a census, as will be those planned for FY 2006 and for future even numbered years.

Definition of Measure

Unit of Measure: Increase in percent positive for Employee Attitude Survey (EAS) metric compared to the FY 2003 result.

Computation: The result from the FY 2003 survey is subtracted from the result from the current survey to calculate the improvement. It is an absolute difference not a relative difference.

Formula: The overall percentage of "agree", and "strongly agree" responses, pooling responses across the twelve items forming the metric, and across all respondents.

Scope of Measure: This measure is based on twelve EAS items that focus on management effectiveness and accountability. The EAS census survey is given every other year.

Twelve EAS items:

- Communications with my supervisor about my performance have helped clarify what is expected from me in my job.
- I am clear about how "good performance" is defined in my organization.
- My organization has clearly communicated the connection between my individual performance goals and my organization's performance goals.
- Non-supervisory employees in my organization are held accountable for achieving agency goals.
- Managers and supervisors in my organization are held accountable for achieving agency goals.
- Corrective actions are taken to deal with non-supervisory employees who perform poorly.
- Corrective actions are taken to deal with supervisors or managers who perform poorly.
- In my organization, there are service goals aimed at meeting customer expectations.
- In my organization, managers show commitment to customer support through their actions.
- It's pretty common to hear "job well done" within my organization.
- Recognition and rewards are based on merit
- People in my organization get the credit they deserve for the work they do

Why the FAA Chooses this Measure

The Employee Attitude Survey is the main tool the FAA uses to measure employees' perceptions about management practices and the work environment. A metric, based on twelve EAS items, was developed to assess perceptions of management effectiveness and accountability.

Source of the Data

FAA employees complete the Employee Attitude Survey. The Civil Aerospace Medical Institute (CAMI) analyzes EAS data and the Assistant Administrator for Human Resource Management (AHR) coordinates the application of the results

Statistical Issues

This metric is calculated based on a census survey, which gives an estimate of the true value within plus/minus 1%. Since this is a perception-based metric, factors outside of the focus of the metric, such as concerns about organizational changes, could have impacts on survey results.

Completeness

A confidence interval is calculated to assess how well the respondent sample result estimates the true (population value). The reliability of the EAS metric is assessed by the standard coefficient alpha method. The FAA uses internal research and analyses of best practices, including a contract with the Corporate Leadership Council, to ensure the metric's appropriateness. Comparisons between EAS results and government surveys, such as the Federal Human Capital Survey, provide converging data.

Reliability

See reference to the coefficient alpha measure of reliability under Completeness. The FAA has a longitudinal EAS database back to 1984 that allows FAA to assess measurement qualities. However, it must be recognized that there are a myriad of factors that can affect employees' perceptions and there is no way to statistically account for all factors. Still, FAA trend results do indicate that when FAA takes effective actions on an issue, survey results can improve. Also, the body of research on employee surveys indicates that the EAS measures factors important for organizational effectiveness.

ORGANIZATIONAL EXCELLENCE
Mission Critical Positions

Federal Aviation Administration

FY 2006 Performance Target

"Reduce the time it takes to fill mission critical positions by 10% over the FY 2003 Baseline of 81 Median Days."

Flight Plan Objective and Performance Target

Objective 1: Make the organization more effective with stronger leadership, increased commitment of individual workers to fulfill organization-wide goals, and a better prepared, better trained, safer, diverse workforce.

Performance Target: By FY 2010, reduce the time it takes to fill mission critical positions by 25 percent over the FY 2003 baseline.

	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006
Target	N/A	N/A	- 3%	- 6%	- 10%
Actual	N/A	N/A	- 28%	- 35%	

Definition of Measure

Unit of Measure: Percentage reduction of time to fill mission critical positions over baseline.

Computation: Time-to-Fill mission-critical positions (MCPs) is calculated using the difference in time from the date an action to fill a position is received from the hiring organization to the date AHR makes the job offer to the individual selected to fill the position. The FAA has established an efficiency criterion to reduce the median number of days to fill mission-critical positions in annual increments totaling 25% by FY 2010. Medians for each MCP and a total median for all MCPs are computed and compared to the baseline measure to determine if the percent reduction meets the performance goal. To compute the percentage reduction over the baseline, the difference between the current year result and the baseline is divided by the baseline to calculate the percentage reduction.

Formula:

$$\text{Percentage reduction} = \frac{\text{Current Time to Hire} - \text{Baseline}}{\text{Baseline}}$$

Scope of Measure: The measure assesses mission-critical hires from both external and internal sources. The following occupations comprise the FAA MCP index: Aviation Safety Inspectors (1825s), Engineer/Electronics Technicians (802/856s), Transportation Specialists (2101s), IT Specialists (334s and 1550s), and Engineers (800s). The identified MCPs represent about 35% of the onboard FAA workforce.

As a result of analyses performed in FY 2004, Air Traffic Controllers (2152s) were removed from the FAA MCP index and tracked separately. A comprehensive internal and external study of hiring practices for the Air Traffic Controller occupation was recently completed, and results will be used to set a fair and challenging standard for filling controller positions. Based on the study's results and other factors, consideration will be given to whether Air Traffic Controllers should be tracked and analyzed separately or reintroduced into the analysis with other mission-critical positions.

Why the FAA Chooses this Measure

One crucial element of assuring safety and greater efficiency through organizational excellence is an efficient and high-quality hiring process for filling MCPs. Using the time-to-fill metric as an organizational excellence performance target, the FAA has achieved greater efficiencies when it comes to hiring the agency's most valuable asset, its people. In anticipation of the forthcoming retirement bubble, with more employees becoming retirement-eligible each year, it is in the agency's best interest to ensure that mission-critical hires are done in a timely manner and that they net the qualified individuals needed to achieve mission results. Measuring the time it takes to fill positions is a critical first step in improving this process.

Source of the Data

Office of Human Resources (AHR) staffing specialists across the country enter time-to-fill data throughout the year into a website database. The database provides a secure record of the time it takes to fill positions and allows optimal flexibility in managing and analyzing the stored information. AHR collects additional descriptive information besides the amount of time for the hiring process. This enables the office to locate delays in the process steps, as well as to examine how the FAA is doing by Region, Line of Business, and Hiring Vehicle (e.g., via announcement or direct hire authority). Maintaining annual records allows performance to be compared year by year.

Statistical Issues

There are several factors that can potentially influence performance variability and impact results. Hiring fluctuations, due to agency budget constraints, may significantly influence the amount of time to fill positions. For example, the volume of hiring in the mission critical occupations during the first quarter of FY 2006 has been relatively low. If there is a disproportionate increase in hiring actions at the end of the fiscal year, as is generally the rule, this could shift the median time to hire upwards. In addition, low overall hire rates relative to mission critical occupations with lower fill-times and more automated processing provides less opportunity to counteract occupations with higher fill-times and more manual processing.

Analyses performed through FY03 and FY04 found the pattern in time and process for filling Air Traffic Controller positions different from the other mission critical positions. As a result, Air Traffic Controllers were removed from FAA's MCP index; therefore, the measure does not include Air Traffic Controllers. If reintroduced back into FAA's MCP index, variability in the hiring process for this occupation could greatly influence measurement.

Completeness

AHR has implemented several practices to ensure the integrity of data in the Time-to-Fill system. For example, monthly teleconferences with regional staffing personnel have provided a forum for discussions around efficiencies in hiring processes, resulting in more standardization and streamlined practices. In addition, monthly and quarterly monitoring of the time to fill mission critical positions ensures more proactive management of hiring processes.

Reliability

The Time-to-Fill system is a dynamic system, with hiring actions entered continually by field and headquarters staffing specialists. Because the system is constantly updated, monthly reports only reflect the fill-time for hiring actions entered before the report's cut-off date. The median fill time numbers are finalized and stabilized for the year-end status report.

ORGANIZATIONAL EXCELLENCE
Reduce Workplace Injuries

Federal Aviation Administration

FY 2006 Performance Target

"Reduce the total workplace injury and illness case rate to no more than 2.85 per 100 employees by the end of FY 2006"

Flight Plan Objective and Performance Target

Objective 1: Make the organization more effective with stronger leadership, increased commitment of individual workers to fulfill organization-wide goals, and a better prepared, better trained, safer, diverse workforce.

Performance Target: Reduce the total workplace injury and illness case rate to no more than 2.85 per 100 employees by the end of FY 2006, representing a cumulative 3 percent annual reduction from the FY 2003 baseline (3.12) set in the Safety, Health and Return to Employment (SHARE) Presidential Initiative.

	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006
Target	N/A	N/A	N/A	N/A	2.85 per 100
Actual	N/A	N/A	N/A	N/A	

Definition of Measure

Unit of Measure: Rate of work-related injuries and illnesses per 100 employees.

Computation: The case rate is determined by dividing the total number of cases of work-related injuries and illnesses for the entire year by the total number of employees, and multiplying by 100. (The rate is expressed in cases per 100 employees).
For the intermediate quarterly reporting, the targets are to have less than the following cumulative rates:

1st Quarter: 0.71
2nd Quarter: 1.42
3rd Quarter: 2.14

Formula:

$$\text{Total case rate} = \frac{\text{Total Cases}}{\text{Total Number of Employees}} \times 100$$

Scope of Measure: This measure includes work-related injuries and illnesses to FAA employees only. It excludes off-duty, non-work-related incidents. It also excludes injuries or illnesses of aviation employees, passengers and the general public.

Why the FAA Chooses this Measure

The total case rate is a standard measure used by the Department of Labor for evaluating workplace safety. It is used in the Presidential Safety, Health and Return-to-Employment (SHARE) Initiative, which requires agencies to reduce their total case rates by 3% per year, measured against a baseline of the agency's performance in FY 2003. This measure is important since reduction in the total case rate leads to improved productivity and quality of life for the FAA workforce and lowers costs related to workplace injuries.

Source of the Data

The data source for the number of cases is the Department of Labor (DOL) SHARE Initiative web site (currently http://www.dol.gov/esa/owcp/share/), which summarizes injuries and illnesses reported by the various agencies.

The data source for the number of employees is the Department of Transportation Workforce Demographics web site (currently http://dothr.ost.dot.gov/Workforce_Information/Demographics_By_Year/demographics_by_year.htm).

The SHARE data reports are available quarterly, with an approximate one-month lag time.
We will report the case rates quarterly, with a one-month lag time.

Statistical Issues

There may be delays in the submission of claims. Also, sometimes, multiple claims may result from a single workplace incident (for example, chemical vapors and odors). Because of this variability, we provide a 10% margin to declare our status as green for the intermediate reporting (Quarters 1-3), just as is used for aviation safety targets. Thus the effective intermediate targets for reporting as green are:

1st Quarter: 0.64
2nd Quarter: 1.28
3rd Quarter: 1.93

If there are major delays in filing claims with the Department of Labor, or if there are unforeseen incidents that injure large numbers of people, the performance measure could change suddenly. However, based on historical data, the magnitude of such changes would likely be small.

Completeness

Data quality is expected to be high, since the computation follows a well-established formula from the Department of Labor, and the data sources for each variable in the formula are Federal Departmental level databases.

Reliability

As noted under Completeness, data quality is expected to be high, since the computation follows a well-established formula from the Department of Labor, and the data sources for each variable in the formula are Federal Departmental level databases. The key source of possible inaccuracy in the data is the data entry for the injury and illness reports. FAA has consolidated Workers' Compensation case management for Headquarters, six Regions and both Centers, using employees with extensive specialized experience, and will extend the consolidation to the remaining Regions by the end of Calendar Year 2006. One benefit of this consolidation should be increased data accuracy. In addition, some FAA safety professionals use the Safety Management Information System (SMIS) to cross-check mishap reports against Workers' Compensation claims to improve data accuracy.

ORGANIZATIONAL EXCELLENCE
Grievance Processing Time

Federal Aviation Administration

FY 2006 Performance Target

"*Determine grievance processing baseline for grievance processing time performance measure."*

Flight Plan Objective and Performance Target

Objective 1: Make the organization more effective with stronger leadership, increased commitment of individual workers to fulfill organization-wide goals, and a better prepared, better trained, safer, diverse workforce.

Performance Target: Reduce grievance-processing time by 25 percent by FY 2010.

	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006
Target	N/A	N/A	N/A	N/A	Set Baseline
Actual	N/A	N/A	N/A	N/A	

Definition of Measure

Unit of Measure: During FY 2006, determine the number of days to process a grievance to set a baseline to measure reductions in grievance processing time. Using the baseline, reach a total reduction of 25% between FY-07 and FY-10.

Computation: Once the baseline is established in FY 2006, grievance-processing time will be monitored and measured against the baseline in FY 2007 through FY 2010. Progress toward the overall 25% reduction in processing time is cumulative and should be evident in each of the 4 out years.

Formula:

$$\text{Percentage Decrease} = \frac{\text{Current Processing Time} - \text{Baseline}}{\text{Baselline}}$$

Scope of Measure: All union grievances nationwide filed during the fiscal year in question.

Why the FAA Chooses this Measure

To ensure a consistent and corporate labor management program, the FAA focuses on providing effective and efficient processes to train managers and supervisors, and handle grievances, negotiations, and contract administration.

Source of the Data

Grievance Electronic Tracking System (GETS). GETS is a proprietary FAA system for tracking and processing grievances. The data is entered and updated by authorized labor relations users in regions, centers and headquarters. Personnel in the National Policy and Programs Services Division, AHL-400, manage the system.

Statistical Issues

Develop a method to determine a baseline and set a measuring mechanism in GETS. GETS is pre-programmed to calculate the number of "Days in "Process" for each grievance record. This data can then be sorted, totaled, and averaged for further analysis.

Completeness

GETS verifies the data completeness, accuracy, consistency, and timeliness. A periodic review of the data allows AHL-400 to validate the appropriateness of the measure. This method will allow us to continually monitor the viability of the data.

Reliability

The GETS database has built-in control elements that must be correctly populated before a record can be accepted in the database. Completed records are not deleted and can be used for multiple purposes. Newly discovered data can be measured not only on current records, but also on legacy completed records.

ORGANIZATIONAL EXCELLENCE
Air Traffic Controller Hiring Plan

Federal Aviation Administration

FY 2006 Performance Target

"Maintain air traffic controller annual hiring within 5 percent of the Air Traffic Controller Workforce Hiring Plan."

Flight Plan Objective and Performance Target

Objective 1: Make the organization more effective with stronger leadership, increased commitment of individual workers to fulfill organization-wide goals, and a better prepared, better trained, safer, diverse workforce.

Performance Target: Maintain air traffic controller annual hiring within 5 percent of the Air Traffic Controller Workforce Hiring Plan.

	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006
Target	NA	NA	NA	NA	5%
Actual	NA	NA	NA	NA	

Definition of Measure

Unit of Measure: Percentage of target not met.

Computation: The percentage of the target met is calculated and subtracted from one to determine the percentage not met. The result must be equal to or less than the 5% Performance Target.

Formula:

$$\text{Percentage of Target Not Met} = 1 - \frac{\text{Actual air traffic controller hiring}}{\text{Target air traffic controller hiring}}$$

Scope: New air traffic controllers hired during fiscal year.

Why the FAA Chooses this Measure

The goal to maintain annual air traffic controller hiring was established after publication of the December 2004 Report, "A Plan for the Future: The Federal Aviation Administration's 10-year Strategy for the Air Traffic Control Workforce". This report outlined the agency's plan to hire, staff and train controllers through 2014.

Source of the Data

The data on air traffic controller hiring is collected by the Financial Metrics group within the Office of Finance for the Air Traffic Organization. The hiring targets are generated by the Financial Analysis and Process Re-engineering group within the Office of Finance for the Air Traffic Organization.

Statistical Issues

N/A

Completeness

The hiring data is collected and compiled monthly. Completeness is guaranteed by contacting each facility monthly to determine the number of controllers hired.

Reliability

Field facilities submit monthly hiring numbers to the Financial Metrics group. The reliability of these reports is ensured since the facility is the level at which the controllers are assigned.

ORGANIZATIONAL EXCELLENCE
Cost Reimbursable Contracts

Federal Aviation Administration

FY 2006 Performance Target

"Close out 85 percent of eligible cost reimbursable contracts."

Flight Plan Objective and Performance Target

Objective 2: Improve financial management while delivering quality customer service.

Performance Target: Close out 85 percent of eligible cost reimbursable contracts during each fiscal year.

	FY 2002	FY 2003	FY 2004*	FY 2005	FY 2006
Target	N/A	N/A	180	85%	85%
Actual	N/A	N/A	135	170%	

* The target for FY 2004 was number of contracts closed, rather than percentage.

Definition of Measure

Unit of Measure: The percentage of cost reimbursable contracts closed during FY06.

Computation: Office of Acquisition and Policy determined the total number of cost reimbursable-type contracts that ended and are eligible for close-out in the previous fiscal year. In FY 2005 sixty-two contracts were eligible for close-out. The goal is to close out 85% of that number, or 53 contracts.

Formula:

$$\text{Percentage of Eligible Contracts Closed Out} = \frac{\text{Number of Contracts Closed Out}}{\text{Number of Eligible Contracts}}$$

Scope of Measure: The number of cost reimbursable type contracts (i.e., cost reimbursement, labor hour, time and materials and indefinite quantity/indefinite delivery) closed throughout the fiscal year.

Why the FAA Chooses this Measure

It is important for the Agency to close out contracts in a timely basis. By doing so, contracts are administered more efficiently and Agency liability is reduced. The Agency avoids accumulating a backlog of old, unclosed contracts. It is important to maintain high close-out rates to avoid such issues as the loss of expired funds, loss of file documents, loss of vendor's corporate knowledge, and/or changes in the contractor's business status. A high number of unclosed contracts can create potentially large liabilities where final amounts are due to or from the contractor and the Agency loses the use of funds that could otherwise be recouped. Such a situation could create a material weakness in the Agency's annual audit.

Source of the Data

PRISM is used to identify cost reimbursable-type contracts for which performance has ended. On a monthly basis, closed contracts are reported to the Contract Support Systems Branch by either the contracting officer who closed-out the contract(s) or the contractor tasked with closing-out FAA contracts.

Statistical Issues

The nature of close-out activities tends to result in an increase in contract close-outs reported during the third and fourth quarters of the fiscal year. The close-out process involves obtaining a final invoice, final audit and identifying any necessary funds to close-out the contract. Hence, closed contracts are not reported evenly during the fiscal year.

Completeness

The Contract Support Systems branch maintains a database of all closed contracts. Division managers report the number of closed contracts to the Contract Support Systems branch on a monthly basis. In addition, closed contract files are received in the branch for distribution to central archives. It is possible that closed contracts do not get entered into the database, if they are not reported to the Contract Support Systems branch by the procurement divisions. Therefore, there may be a slight risk of the number of closed contracts being under reported.

Reliability

Only contracts that are closed-out completely (no outstanding issues) are entered into the database. Therefore, there is no chance of entering contracts into the database that are not closed.

ORGANIZATIONAL EXCELLENCE
Cost Control

Federal Aviation Administration

FY 2006 Performance Target

"Each FAA organization will contribute at least one measurable and significant cost efficiency and/or productivity improvement activity each year."

Flight Plan Objective and Performance Target

Objective 2: Improve financial management while delivering quality customer service.

Performance Target: Each FAA organization will contribute at least one measurable and significant cost reduction and/or productivity improvement activity each year, including but not limited to, cost efficiencies in the areas of:

- Strategic sourcing for selected products and services;
- Complete consolidation of facilities and services such as accounting offices, real property management, helpdesks, and Web services; and
- Elimination or reduction of FAA use of obsolete technology by either removing from service or transferring from federal operation 100 Navaids.

	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006
Target	NA	NA	NA	Implement Program	1 Activity per Organization
Actual	NA	NA	NA	Program Implemented	

Definition of Measure

Unit of Measure: At least one cost control activity or one productivity improvement activity from the following Lines of Business/Staff Offices: ATO, AVS, ARP, AST, ABA, AIO, ARC, AHR, ACR, AGC, API, AEP, ASH, and AOC.

Computation: A count of the number of organizations involved from those listed above.

Formula: N/A

Scope of Measure: Any actions that save money, avoid incurring additional costs or streamline a process could qualify for inclusion. Examples include reduced staffing levels, reduced travel, reduction of contract support, and consolidation of similar activities that may have been performed at more than one location within the agency. Productivity improvements are any initiative that improves the efficiency of an organization. Examples include:

- More evenly allocating work loads;
- Synchronizing inspections of certain tasks;
- Increasing the percentage of electronic payments made to vendors.

Productivity improvement activities can either increase output while maintaining the same level of input or maintain the same level of output while reducing the level of input.

Why the FAA Chooses this Measure

FAA's operating costs have increased significantly over the past decade. Furthermore, oversight authorities such as the Office of Inspector General and the Government Accountability Office have raised concern regarding our escalating operating costs. To address this concern, the agency is taking aggressive actions to stem the growth of operating costs. A centrally developed and led initiative, under the executive direction of the agency's Chief Financial Officer, provides the impetus for successful and sustained cost control activities. Organizations' participation and progress is reported monthly to the Administrator and the Executive Management team at the Flight Plan meeting.

Source of the Data

Each organization -- Line of Business or Staff Office (LOB/SO) -- utilizes an Office of Financial Services (ABA) designed template to propose a cost saving, cost avoidance and/or productivity improvement activity. Upon receipt of the completed template, it under goes review by a team of ABA personnel to validate the proposal and associated computations. Once the team verifies the activity, the responsible organization provides monthly updates on progress toward achieving the stated goal(s).

Statistical Issues

N/A

Completeness

Each completed template is retained on an ABA shared drive.

Reliability

ABA verifies organizations' activities, milestones, and dollars saved/avoided using a template completed by the organizations. The individual organizations are responsible for maintaining files containing supporting documentation on their activity to ensure verification by audit. There is minimal risk for inaccurate reporting.

ORGANIZATIONAL EXCELLENCE
Clean Audit

Federal Aviation Administration

FY 2006 Performance Target

"Obtain an unqualified opinion on the agency's financial statements (Clean Audit with no material weaknesses) each fiscal year."

Flight Plan Objective and Performance Target

Objective 2: Improve financial management while delivering quality customer service.

Performance Target: Obtain an unqualified opinion on the agency's financial statements (Clean Audit with No Material Weaknesses [NMW]) each fiscal year.

	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006
Target	N/A	N/A	N/A	N/A	Clean Audit w/NMW*
Actual	Clean Audit	Clean Audit	Clean Audit	Clean Audit	

* This new Performance Target raises the standard set by the FAA in previous years. Between FY 2002 and FY 2005, the agency's internal goal a clean audit opinion. Beginning in FY 2006, the Flight Plan specifies not only a clean audit but also no material weaknesses found (NMW).

Definition of Measure

Unit of Measure: Unqualified independent auditors' opinion rendered on FAA's annual financial statements, with no material weaknesses.

Computation: N/A

Formula: N/A

Scope of Measure: The scope of this measure includes FAA's annual audited financial statements, related footnotes, and required supplementary information—all of which are published by FAA in its annual Performance and Accountability Report.

Why the FAA Chooses this Measure

FAA chooses this measure because it is an independent assessment of FAA's internal control environment over financial reporting; FAA's compliance with certain laws & regulations, and FAA's ability to fairly present the results of its financial position and activities during the year.

Source of the Data

The data used to evaluate FAA's measure against this target comes from the independent auditors' report, issued as a result of their audit of FAA's annual financial statements. The auditors' report is published annually in FAA's Performance and Accountability Report.

Statistical Issues

N/A

Completeness

N/A

Reliability

N/A

ORGANIZATIONAL EXCELLENCE
Critical Acquisitions On Budget

Federal Aviation Administration

FY 2006 Performance Target

"Make sure 85% of critical acquisition programs are within 10% of budget as reflected in the Capital Investment Plan (CIP)."

Flight Plan Objective and Performance Target

Objetive 3: Make decisions based on reliable data to improve our overall performance and customer satisfaction.

Performance Target: By FY 2008, 90 percent of major system acquisition investments are within 10 percent of annual budget and maintain through FY 2010.

	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006
Target	N/A	80%	80%	80%	85%
Actual	N/A	88.0%	100%	97.0%	

Definition of Measure

Unit of Measure: Percentage of programs within 10% of planned budget.

Computation: Cost performance for each program is measured by comparing the total F&E budget-at-completion amount established in the January FAA Capital Investment Plan (CIP) against the projected budget-at-completion amount published in the August CIP. Any program with a total budget-at-completion variance of more than 10% is considered to not have met the established fiscal year cost performance goal.

Formula:

$$\text{Budget Performance per Program} = \frac{\text{January Budget at Completion Amount}}{\text{August Budget at Completion Projection}}$$

Scope of Measure: FAA's Air Traffic Organization (ATO) Service Units select specific programs that are determined to provide a capital asset to the NAS. For FY06, 31 acquisition programs will be tracked and monitored. Most of the programs selected are considered "major" and must submit an exhibit 300. Those that do not provide exhibit 300s are included because they contribute an asset to the NAS with a useful life of more than two years. The designation of "critical acquisition programs" in the title of this performance target expresses the critical value of the program to the NAS. The budget measure is set to the January 2005 CIP.

Why the FAA Chooses this Measure

The Critical Acquisitions on Budget target represents a progressive measure for each fiscal year of the performance of critical FAA acquisition programs. The performance measure began in FY 2003 and will continue each fiscal year through the acquisition of the selected programs. The performance target will increase each year until it reaches 90% in FY 2008. This progressive increase from 80% in FY 2003 to 90% by FY 2008 will ensure that the FAA's Acquisition performance is consistent with targets set in *The Department of Transportation Strategic Plan 2003-2008*. Reaching the 90% target by FY 2008 will also ensure that FAA performance goals meet *The Federal Acquisition Streamlining Act of 1994, Title V (FASA V)*. This Act requires agencies to establish cost and schedule performance goals for all major acquisition programs and to achieve 90 percent of those goals.

Source of the Data

ATO tracks and reports status of all schedule and cost performance targets using an automated database. ATO Service Units provide a monthly Red, Yellow, or Green assessment that indicates their confidence level in meeting their established milestones. Comments are provided monthly that detail problems, issues, and corrective actions, ensure milestones and cost are maintained within the established performance target. The performance status is reported monthly to the ATO Executive Committee through the ATO Strategic Management Process (SMP) and to the FAA Administrator through FAA Flight Plan meetings.

Statistical Issues

The programs that are selected each fiscal year represent a cross section of programs within the ATO. They include programs that have an Exhibit 300 as well as what is referred to as "buy-by-the-pound" programs. The latter typically do not undergo a standard acquisition life cycle process.

Completeness

This measure is current with no missing data. Each DOT organization maintains its own quality control checks for cost, schedule, and technical performance data of each major systems acquisition in accordance with OMB Circulars A-11, A-109, and A-130, Federal Acquisition Regulations, and Departmental orders implementing those directives and regulations.

Reliability

Each DOT organization having major system acquisitions uses the data during periodic acquisition program reviews, for determining resource requests. They are also used during the annual budget preparation process, for reporting progress made in the President's budget and for making key program management decisions. The monthly status is reported through the SPIRE database and included in monthly high-level management reviews. Once the program is selected and approved for tracking purposes it is reported on with detailed commentary each month, and assigned a Red, Yellow, or Green Confidence indicator that the cost is within the 10% threshold. These detailed reports are reviewed at all levels of the appropriate Service Unit, Executive levels within the ATO, and the FAA Administrator.

ORGANIZATIONAL EXCELLENCE
Critical Acquisitions On Schedule

Federal Aviation Administration

FY 2006 Performance Target

"Make sure 85% of critical acquisition programs are on schedule."

Flight Plan Objective and Performance Target

Objective 3: Make decisions based on reliable data to improve our overall performance and customer satisfaction.

Performance Target: By FY 2008, 90% of major system acquisition investments are on schedule and maintain through FY 2010.

	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006
Target	N/A	80%	80%	80%	85%
Actual*	N/A	77.0%	91.5%	92.0%	

* In DOT 's FY 2005 PAR, the FY 2003 result is reported as 78%. This discrepancy is due to the use of weighting in the calculation by DOT, which was discontinued in FY 2004. Also, the results for FY 2004 are rounded up to 92% in the DOT PAR.

Definition of Measure

Unit of Measure: Percentage of programs meeting 90% of milestones.

Computation: Schedule performance is measured by dividing the total number of milestones that meet their fiscal year schedule dates by the total number of milestones planned for the year being measured. The total number of milestones that can be missed and remain within the 85% performance measure will vary for each fiscal year.

Formula: $$\text{Schedule Performance per Program} = \frac{\text{Number of Milestones Met}}{\text{Total Number of Milestones Tracked}}$$

Scope of Measure: FAA's Air Traffic Organization (ATO) Service Units select specific milestones and completion dates against programs that are determined to provide a capital asset to the NAS. For FY 2006, 39 selected critical milestones will be tracked against 31 acquisition programs. Thirty-three milestones must meet their targeted date to be within 85% of the performance goal. Most of the programs selected are considered "major" and must submit an exhibit 300. Those that do not provide exhibit 300's are included because they provide an asset to the NAS with a useful life of more than two years. The designation of "critical acquisition programs" in the title of the performance target expresses the critical value of the program to the NAS. The schedule measure is set to only those milestones selected. No milestones are added during the year.

Why the FAA Chooses this Measure

The Critical Acquisitions on Schedule target represents a progressive measure for each fiscal year of the performance of critical FAA acquisition programs. The performance measure began in FY 2003 and will continue each fiscal year through the acquisition of the selected programs. The performance target will increase each year until it reaches 90% in FY 2008. This progressive increase from 80% in FY 2003 to 90% by FY 2008 will ensure that the FAA's acquisition performance is consistent with targets set in *The Department of Transportation Strategic Plan 2003-2008*. Reaching the 90% target by FY 2008 will also ensure that FAA performance goals meet *The Federal Acquisition Streamlining Act of 1994, Title V (FASA V)*. This Act requires agencies to establish, cost, schedule, and measurable performance goals for all major acquisition programs and achieve 90 percent of those goals.

Source of the Data

ATO tracks and reports status of all schedule and cost performance targets using an automated database. ATO Service Units provide a monthly Red, Yellow, or Green assessment that indicates their confidence level in meeting their established milestones. Comments are provided monthly that detail problems, issues, and corrective actions to ensure milestones and cost are maintained within the established performance target. The performance status is reported monthly to the ATO Executive Committee through the ATO Strategic Management Process (SMP) and to the FAA Administrator through FAA Flight Plan meetings.

Statistical Issues

The programs that are selected each fiscal year represent a cross section of programs within the ATO. They include programs that have an Exhibit 300 as well as what is referred to as "buy-by-the-pound" programs. The latter are typically not required to undergo a standard acquisition life cycle process. There is no bias with the selection of milestones. The milestones selected represent the program office's determination as to what effort they deem "critical" or important enough to warrant inclusion in the Acquisition Performance goal for the year. Typically there are anywhere from two to four milestones. Interim milestones are also tracked but not included in the final performance calculation.

Completeness

This measure is current with no missing data. Each DOT organization maintains its own quality control checks for cost, schedule, and technical performance data of each major systems acquisition in accordance with OMB Circulars A-11, A-109, and A-130, Federal Acquisition Regulations, and Departmental orders implementing those directives and regulations.

Reliability

Each DOT organization having major system acquisitions uses the data during periodic acquisition program reviews, for determining resource requests. They are also used during the annual budget preparation process, for reporting progress made in the President's budget and for making key program management decisions. The monthly status is reported through the SPIRE database and included in monthly high-level management reviews. Since the Acquisition Performance target is a fiscal year performance measure the specific milestone and date selected is set at the beginning of each fiscal year and not changed. The ATO Executive Council must approve all requested changes. Once the milestone is approved it is reported on with detailed commentary each month, and assigned a Red, Yellow, or Green confidence indicator that the milestone will be met on schedule. These detailed reports are reviewed at all levels of the appropriate Service Unit, Executive levels, within the ATO and up to FAA Administrator.

ORGANIZATIONAL EXCELLENCE
Customer Satisfaction

Federal Aviation Administration

FY 2006 Performance Target

"Increase agency scores on the American Customer Satisfaction Survey to 65."

Flight Plan Objective and Performance Target

Objective 3: Make decisions based on reliable data to improve our overall performance and customer satisfaction.

Performance Target: Increase Agency scores on the American Customer Satisfaction Index.

	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006
Target	60	62	63	64	65
Actual	64	64	65	66	

Definition of Measure

Unit of Measure: The ACSI reports scores on a 0 to 100 scale at the national level.

Computation: The ACSI model is a set of causal equations that link customer expectations, perceived quality, and perceived value to customer satisfaction (ACSI). The FAA's score is compared to the annual target to determine if the agency's goal has been met. Data are collected at the individual customer level, with scores for a company's customers aggregated to produce the company-level results.

Formula: N/A

Scope of Measure: The University of Michigan draws a sample of 260 names for interview (telephone) from a random subset of a list of 10,000 certified airmen maintained at the Civil Aviation Registry. Customer base is a licensed commercial pilot with a current, active first or second-class medical certificate.

Why the FAA Chooses this Measure

Established in 1994, the American Customer Satisfaction Index (ACSI) is a uniform and independent measure of household consumption experience. The ACSI tracks trends in customer satisfaction and provides benchmarking insights of the consumer economy for companies, industry trade associations, and government agencies. The ACSI is produced by the Stephen M. Ross Business School at the University of Michigan, in partnership with the American Society for Quality (ASQ) and the international consulting firm, CFI Group. It provides a recognized, independent source of customer satisfaction information.

Source of the Data

American Customer Satisfaction Index produced by the National Quality Research Center at the University of Michigan Business School.

Statistical Issues

Represents only a segment of the FAA's customer base.

Completeness

N/A

Reliability

According to ACSI, "Typically, differences of 3 points or more between companies/agencies or between two scores for the same company/agency are greater than could be caused by sampling error."

ORGANIZATIONAL EXCELLENCE
Information Security

Federal Aviation Administration

FY 2006 Performance Target

"Zero cyber security events that significantly disable or degrade FAA services."

Flight Plan Objective and Performance Target

Objective 3: Make decisions based on reliable data to improve our overall performance and customer satisfaction

Performance Target: Achieve zero cyber security events that disable or significantly degrade FAA services.

	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006
Target	N/A	N/A	90%*	0	0
Actual	N/A	N/A	100%	0	

* Target for FY 2004 was percentage of milestones achieved.

Definition of Measure

Unit of Measure: Number of successful cyber attacks as determined by FAA's Cyber Security Incident Response Center (CSIRC).

Computation: A count of the number of successful cyber attacks in the current fiscal year.

Formula: N/A

Scope of Measure: The measure is applicable to the agency's Information Technology assets, defined by TCP/IP systems, which contribute to the delivery of FAA services.

The FAA has an information security concept to protect the agency's IT assets in accordance with numerous executive and legal requirements, including the Computer Security Act, Executive Order 13231, and the Federal Information Security Management Act (FISMA), as well as in accordance with DOT and FAA policy. The agency's "android" cyber-defense model is the framework for all the activities to protect the FAA information infrastructure.

Why the FAA Chooses this Measure

Hackers seek to disrupt, or exploit critical infrastructure across the United States. One critical infrastructure, as identified by the President in Homeland Security Presidential Directive/ HSPD-7, is our transportation system, including aviation. Accordingly, the FAA, whose mission is to ensure the safe and efficient movement of aircraft, must be protected against the threat of cyber attacks. The Office of Information Services (AIO) has the agency lead for ensuring that these attacks do not significantly disable or degrade FAA services.

Source of the Data

The data on cyber security attacks comes from data collected by the FAA's Computer Security Incident Response Center, which is part of AIO.

Statistical Issues

N/A

Completeness

The FAA's CSIRC and DOT's Transportation Cyber Incident Response Center (TCIRC) work collaboratively to validate cyber incidents on FAA and departmental systems. This process provides the most accurate and up-to-date measure. The FAA and DOT use current and historical data to validate trends, which indicate an increase in the number and complexity of cyber attacks.

AIO has sensors on the FAA's administrative networks; ATO's FTI Program office has sensors on both the NAS and the administrative networks, which report to the CSIRC. AIO is the primary focal point of incident reporting to the DOT and USCERT.

Reliability

The FAA's CSIRC and DOT TSIRC work together in collaboration with other ISS components in the Federal government. The CSIRC has the responsibility, as outlined in FAA Order 1370.82, of being the focal point for all cyber incidents in the FAA.